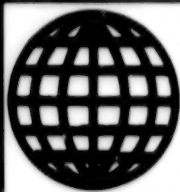


JPRS-UEA-90-045
19 DECEMBER 1990



**FOREIGN
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JPRS Report

Soviet Union

Economic Affairs

Soviet Union

Economic Affairs

JPRS-UEA-90-045

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19 December 1990

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ECONOMIC POLICY, ORGANIZATION, MANAGEMENT

Large Poll Shows Land Ownership Favored

914A0158A Moscow ARGUMENTY I FAKTY
in Russian No 48, Dec 90 p 1

[Editorial: "Land to the People!"]

[Text] More than 300,000 people responded to the ARGUMENTY I FAKTY survey: "Land to the People!" Half of these letters had been processed by the time this issue was published.

The survey conducted by the weekly, you would agree, is unprecedented in its scale.

1. Do you consider the transfer of land to private ownership permissible?

The responses to this question are given in Table 1 (in percent), broken down by age groups, conditions of place of residence, and social status.

Table 1

	Yes	No	Hard To Say
For the country as a whole	96.2	2.9	0.9
Including persons in age groups:			
Under 26 years	96.7	2.6	0.7
26-40 years	97.3	2.0	0.7
41-55 years	96.6	2.5	0.9
over 55 years	93.5	5.4	1.1
Including residents of:			
Rural areas	91.3	7.9	0.8
Small towns	95.2	3.8	1.0
Large cities	96.7	2.4	0.9
By social status:			
Agricultural workers	92.1	6.5	1.4
Rural: white-collar workers, engineering and technical personnel, physicians, teachers, and so forth	92.9	6.1	1.0
Managers of enterprises of the agroindustrial complex	89.8	10.1	0.1
City workers	97.1	2.2	0.7
City: white-collar workers; engineering and technical personnel; scientific, creative, and medical workers; instructors; and so forth	96.8	2.4	0.8
Managers of industrial enterprises and departments	95.3	4.5	0.2
Party, soviet, and state staff workers	94.4	4.7	0.9
Service members	96.5	3.0	0.5
Students	96.7	2.1	1.2
People not working (other than students)	94.4	4.4	1.2

2. In your opinion, how should the land be transferred?

The answers given by those who responded were divided in the following manner:

- "Free of charge"—48.3 percent
- "With a small, symbolic redemption"—43.7 percent
- "With redemption at full value"—8.3 percent
- "Hard to say"—2.1 percent

We will note that some (a small portion) of those who responded indicated more than one possible answer (preferable for themselves).

3. In your opinion, who should accomplish the land transfer?

Here the versions of the answers were divided in the following manner:

- "Soviet of People's Deputies"—76.7 percent
- "Kolkhozes, sovkhozes, and other land users"—10.3 percent
- Other opinions—6.5 percent
- "Hard to say"—6.5 percent

4. How would you dispose of the land?

The responses to this question are shown in Table 2 (in percent).

Table 2

	For producing food products for sale	For supplying families with food products	For organizing vacation sites	For domestic needs	For other purposes
For the country as a whole	26.3	77.1	32.8	23.1	3.3
Including persons in age groups:					
Under 26 years	31.2	70.0	37.4	26.0	3.8
26-40 years	27.7	77.0	33.7	25.4	4.0
41-55 years	26.6	80.0	33.1	23.2	3.1
over 55 years	20.6	78.5	31.4	19.0	2.3
Including residents of:					
Rural areas	60.4	57.4	10.7	15.0	3.0
Small towns	32.2	78.0	19.4	23.8	3.0
Large cities	23.6	78.2	35.8	23.4	3.2
By social status:					
Agricultural workers	68.1	58.1	9.5	14.2	2.4
Rural: white-collar workers, engineering and technical personnel, physicians, teachers, and so forth	34.1	73.8	22.5	20.0	1.8
Managers of enterprises of the agroindustrial complex	56.7	56.6	22.6	26.1	6.9
City workers	33.2	79.6	25.0	25.0	3.0
City: white-collar workers; engi- neering and technical personnel; sci- entific, creative, and medical workers; instructors; and so forth	21.8	79.4	38.8	24.5	3.4
Managers of industrial enter- prises and departments	33.6	74.5	42.1	34.6	5.5
Party, soviet, and state staff workers	22.3	79.7	31.0	18.2	2.2
Service members	26.0	81.2	37.0	26.9	4.0
Students	29.5	71.2	39.6	27.1	4.6
People not working (other than students)	20.8	78.6	31.0	22.1	2.9

5. How much land would you personally like to own as private property?

- "I do not want any"—4.0 percent
- "Up to 10 hundredths of a hectare"—34.2 percent
- "Up to 25 hundredths of a hectare"—34.7 percent
- "Up to 1 hectare"—13.3 percent
- "More than 1 hectare"—12.3 percent
- "Hard to say"—1.5 percent

The editorial office set up a temporary creative collective to process and summarize the results of the survey. It included specialists in computer data analysis: Candidate of Technical Sciences Ye.V. Cherepanov (supervisor); Candidate of Technical Sciences Ye.G. Shchirenko; V.I. Savelov; V.G. Zhukov; D.V. Aleksakhin; Yu.A. Kozin; Candidate of Technical Sciences Ye.A. Grishin; Candidate of Technical Sciences A.G. Kalachev; and others—a total of 35 people.

All the numbers cited in this article have been confirmed by the complete set of reader letter-responses to the

ARGUMENTY I FAKTY survey "Land to the People!", a file of the corresponding data on a magnetic medium, and a printout of the corresponding computer calculations.

Future of State Arbitration Board Viewed

914A0112A Moscow IZVESTIYA in Russian 11 Nov 90
Union Edition p 2

[Interview with V. Isaychev, USSR first deputy chief arbitrator, by R. Lynev, under the rubric "Face to the Market"]

[Text] In the "Basic Course of Stabilization of the National Economy and Transition to a Market Economy," we read: "Matters must be organized in such a way that the new structures would consistently and inevitably eliminate organs that do not correspond to the demands of the market economy." But as regards old structures and organs, there are many who are in favor of dissolving all of them immediately. Take Gosarbitrazh [State Arbitration Board], for example! Why is it needed? In what way is it

better than people's control? This is how the question was recently posed not just anywhere, but in the Belorussian Supreme Soviet."

And even though people's deputies who are managers succeeded in showing that such a formulation of the question is at the very least invalid, Gosarbitrazh is being undermined from another direction: a number of jurists argue that the very concept of Gosarbitrazh is the product of the command system. The market system, however, requires an economic court. To put it another way, the need is for ECONOMIC rather than STATE arbitration.

Incidentally, USSR Gosarbitrazh was recently undermined from a third direction: the Presidium of the Russian Supreme Soviet decreed that all disputes involving the republic's enterprises, institutions, and organizations must be resolved exclusively by its—the Russian—arbitration board. It is even forbidden to send materials to the union arbitration board in the exercise of supervisory powers. Latvian parliamentarians immediately followed the Russians' example.

"How does USSR Gosarbitrazh evaluate all this?" I asked V. Isaychev, USSR first deputy chief arbitrator.

[Isaychev] After numerous consultations with republic arbitration boards and experts, we agreed that the State Arbitration Board should be preserved during the transition to the market. At the same time, the jurisdiction of Gosarbitrazh in the republics is being significantly expanded: they examine most of the conflicts themselves according to their own, republic laws. Coordinating, supervisory functions and the examination of conflicts that have not been satisfied at the republic level—for example, cases involving enterprises of various republics—are delegated to union arbitration. However, decrees adopted on Gosarbitrazh first by the Russian leadership and then by the Latvian leadership not only nullify our recent agreements with republics, but, what is the saddest thing, leave enterprises without legal protection in a number of instances. But is it not clear that Gosarbitrazh in the new, market economy must protect the interests not of Russia, not of Latvia, and not the Union, but of economic agents regardless of whether they are a state enterprise, a cooperative or a private firm and regardless of its location?

[Lynev] But, you will agree, this will require certain changes in the present status of Gosarbitrazh. Can it, for example, be left in a state of double jurisdiction? After all, today USSR Gosarbitrazh is subordinate to the Supreme Soviet and at the same time comes under the union government and becomes something in the nature of an instrument of distribution.

[Isaychev] In my view, it is indeed necessary to put an end to Gosarbitrazh's subordination to executive organs. Here is the collision that is more and more frequently encountered: when enterprises defend their economic independence through Gosarbitrazh, they become involved in disputes not only with the local authorities,

but also with ministries and the government. An especially large number of disputes is generated by attempts by higher organs to hand down state orders not backed by material resources. The result is promises on paper to increase the production of the goods the people need, while the actual result is planned failure. Thus, when enterprises begin to rebel against this vicious practice, their claims are frequently examined by departmental arbitration boards that are nothing other than their own ministries' main administrations. We therefore favor the elimination of such "pocket-departmental" arbitration boards. But let us be candid. After all, our status as union Gosarbitrazh in an enterprise's dispute with the USSR Council of Ministers or USSR Ministry of Finance, upon which we are dependent (we approve staff, receive pay, premises, funds for repair) is not procedurally impeccable. It is not by chance that we are sometimes viewed as a state economic regulatory organ. Accordingly, in the draft law on Gosarbitrazh, we wrote that Gosarbitrazh must be subordinate to only the law.

[Lynev] If that is so, Gosarbitrazh will essentially more closely resemble an economic court and possibly even an arbitration tribunal.

[Isaychev] In the future, this will more likely be the case when the transition to market relations is complete. But it must not be forgotten that a court case usually involves the summoning of witnesses and experts and postponements so that decisions cannot be expected in one week or a month. Nor is a case before an arbitration tribunal often handled in such a short period of time—after all, the parties have to agree on the legal basis of a conflict's resolution. In a number of foreign countries, it is considered optimal if a dispute is examined in the course of a year. In arbitration, which examines on the order of 800,000 cases annually, everything is simpler. It is sufficient that the arbitrator and representatives of the litigating parties be present. The issue is decided more efficiently and I would say more democratically. This is especially important in a rapidly changing economic situation as is the case in our country.

[Lynev] The number of horizontal relations will increase with the transition to the market. Can it therefore be expected that there will be more arbitration cases?

[Isaychev] In principle, there will, of course, be more work. After all, not only state and cooperative enterprises, as at the present, but foreign persons and enterprises as well will become entities in the market.

At the same time, it must be considered that in the interests of market entities, individual shortcomings of their activity will not be made public in court and that they will try to resolve the conflict peacefully through mutual agreement in order to protect the honor of their firm.

[Lynev] Let us take our concrete economic situation at present. In their desire to break with the old relations that were frequently disadvantageous and that were forced upon them from above, enterprises tried not to renew them

in the course of the contract campaign, but instead tried to enter into new, more advantageous relations. To be sure, they have to make the transition to direct barter in the process. But are they to blame that the ruble is worth so little today? And it is in this situation that the President's ukase on zakrepleniye was issued, once again essentially on the basis of coercive administrative and existing economic relations. Only now the prices are freer. Just what are Gosarbitrazh organs protecting under these conditions?

[Isaychev] First of all, the interests of the economy which, especially in the initial period, cannot get by without state regulation. Subsequently, as market relations grow stronger, the regulatory role of the state will obviously grow weaker. But now, can we leave weak enterprises to the tyranny of fate, can we leave them defenseless in the face of the extortion of monopolistic enterprises that frequently dictate terms that are simply exorbitant. Thus the fears of those who view this not as the road to a civilized market of the Western type, but to our wild Riga market, only on the scale of the entire country, are justified.

It is also necessary to consider that in the course of the present contract campaign, which has been extended to 15 December, fines are not the only sanctions we are trying to apply.

What is the sense of applying them if they bring enterprises to the point of ruin? Will the customer receive the raw materials, supplies, and components he needs as a result? It is much more important to obtain for the enterprise a state order that is realistic and that is backed by resources. Only in such a case will contracts between partners be fulfilled. Otherwise how can one speak of any kind of economic stabilization?

Here is another point: Gosarbitrazh organs are entitled to regulate relations only within the framework of the state order, with due regard to existing relations. However, when the agents of management go beyond this framework and the free market begins, we do not accept such cases without the agreement of the parties.

[Lynev] But after all, the property claims of one entity on another also continue to originate independently of the state order. How does this correlate with the other, more recent Presidential ukase on the protection of property?

[Isaychev] We had occasion to examine many disputes, for example, regarding the division of party property between executive committees and party organs even before the ukase. The ukase itself, however, while on the whole a progressive, market-oriented act, was sagging like its predecessor, was declarative, was not reinforced by other necessary acts or else contradicted existing acts.

What kind of subjects are particularly frequent in our practice in this connection? The reciprocal settlement of accounts and shortfalls in deliveries. One entity damages another when it underdelivers. But the responsibility mechanism for the infliction of this damage has not been developed. Under the existing statute, arbitration does not examine disputes involving property valued under 100 rubles. At the same time, every now and then in lots of goods there are either underinvestments in the exact amount of 100 rubles or when goods are received in trade they "dry up" by the same amount. If they are examined separately, they are trivial, but on the whole the losses are very large. It is not by chance that the arbitration board in Estonia has already begun accepting "hundred-ruble" cases for examination as well.

There have been numerous instances of late where a contract for the delivery of a good has been concluded with a cooperative and the credit is granted, but when the time comes to settle accounts, the cooperative has already been disbanded and there is no one to recover from. Here our banks, who are accustomed to dealing with state enterprises and to granting them credit for symbolic interest, without particularly looking into the state of the client's affairs and trustworthiness, have shown their traditional unconcern.

This is the real soil on which the Presidential ukases are based. Its cultivation requires that the code of new market laws, including the law on Gosarbitrazh, take effect on 1 January 1991. But its draft still has to be examined, discussed, and approved. Whether this can be done before the end of the year is a matter of concern.

POLICY, ORGANIZATION

Belorussian Law on Foreign Economic Dealings

914A0145A Minsk SOVETSKAYA BELORUSSIYA
in Russian 6 Nov 90 p 2

[Law of the Belorussian SSR: "On the Fundamentals of Foreign Economic Activity of the Belorussian SSR"]

[Text] The present Law establishes the fundamentals of the foreign economic relations of the Belorussian SSR. It is based on the principles contained in the republic's Declaration of State Sovereignty and on generally accepted international norms and rules.

The Belorussian SSR has the right to its own share of the diamond and hard currency stores and the gold reserve of the USSR and carries on foreign economic dealings on the basis of the uniform currency-money system, preserving the unity of USSR customs territory and the customs law and statistics of the USSR as defined on a treaty basis with the USSR, while observing the republic's own economic interests.

The sphere of operation of the present Law includes all types of foreign economic activity, including foreign trade and economic, scientific-technical, and cultural cooperation. The Law applies to specialization and cooperation in the fields of production and science and technology, to construction and reconstruction projects, carrying on transportation, shipping, and insurance transactions, clearing, credit, and other banking transactions, tourism, and other activity in the area of international exchange of goods, services, and the products of creative activity.

Article 1. The Belorussian SSR as the Subject of Foreign Economic Activity

The following are done by the Belorussian SSR:

- developing and implementing foreign economic policy, including hard currency-credit policy and procedures for setting quotas and licensing foreign economic operations;
- establishing the legal foundations of management activity in the foreign economic sphere;
- concluding and carrying out international agreements in the field of foreign economic activity in conformity with generally recognized principles and norms of international law;
- establishing procedures for the formation and registration of joint enterprises and international associations, enterprises, and organizations engaged in foreign economic activity;
- protecting the economic interests of the Belorussian SSR and Belorussian SSR enterprises, organizations, and citizens beyond its borders;

—establishing taxes, fees, and compulsory payments to the republic budget and the budgets of local soviets from the income of participants in foreign economic activity, the norms for which are established by the legislation of the Belorussian SSR;

—defining free enterprise zones;

—participating in the formation and activity of international economic and scientific-technical organizations as well as intergovernmental commissions and committees on trade-economic, scientific-technical, and cultural cooperation and other international economic organs.

Article 2. Principles of Relations of the Belorussian SSR with Other States in the Field of Foreign Economic Activity

The relations of the Belorussian SSR with other states in the field of foreign economic activity are built on the basis of compliance with the principles of equality among states, nonintervention in internal affairs, cooperation among states, conscientious fulfillment of obligations arising from generally recognized principles and norms of international law and international agreements of the Belorussian SSR, plus nondiscrimination and mutual benefit.

Article 3. The Subjects of Foreign Economic Activity

Enterprises, organizations, or associations of them, cooperatives, and other legal and physical persons have the right to carry on foreign economic activity after appropriate registration. Participants in foreign economic activity are registered by the organ authorized by the republic government.

Article 4. Delineation of the Accountability of the State and Participants in Foreign Economic Activity

The participants in foreign economic activity are not accountable for state obligations; the state is not accountable for the obligations of participants in foreign economic activity.

Article 5. Direction and Management of Foreign Economic Activity

General direction of foreign economic activity is carried on by the Belorussian SSR Council of Ministers.

The work of ministries, departments, associations, enterprises, and organizations with respect to carrying on foreign economic relations is coordinated by the Belorussian SSR State Committee for Foreign Economic Relations.

Article 6. Participation by Banks of the Belorussian SSR in Carrying on Foreign Economic Activity

Provision of insurance and management of clearing-credit, cash, and other transactions to serve participants in foreign economic relations is done by banks based on licenses from the Belorussian SSR National Bank.

Article 7. Official Offices of Foreign States, Enterprises, and Organizations in the Belorussian SSR and Official Offices of the Belorussian SSR and Enterprises and Organizations Involved in Trade and Economic Questions Abroad

Foreign states, enterprises, organizations, and other legal persons may establish their own official offices for trade and economic matters in the Belorussian SSR; the Belorussian SSR, enterprises, and organizations can establish their own offices abroad on the basis of international agreements between the Belorussian SSR and foreign states.

The procedures for opening and operating official offices are determined by legislation of the Belorussian SSR.

Article 8. Foreign Economic Activity in the Belorussian with Participation by Foreign Capital

Under the laws of the Belorussian SSR, joint enterprises and international associations and organizations with participation by Soviet and foreign legal and physical persons can be formed in the republic.

Joint enterprises and international associations and organizations are accountable for their obligations to the full extent of all the property belonging to them.

The property rights of joint enterprises and international associations and organizations are subject to protection in conformity with the laws of the Belorussian SSR.

Joint enterprises and international associations and organizations have the right, following the procedures established by the laws of the Belorussian SSR, to carry on foreign trade and other foreign economic dealings, including transactions in rubles within the republic, without the right to export rubles.

The subjects of foreign economic activity can take part in joint enterprises and international associations and organizations in foreign states and carry on production, science-production, scientific-technical, and other economic activity in their territory in conformity with the laws of the Belorussian SSR and of those states, as well as the international agreements of the Belorussian SSR.

Article 9. State Monitoring of Foreign Economic Activity

State monitoring of foreign trade and other types of foreign economic activity is done by the highest organs of state power and administration of the Belorussian SSR.

For the purpose of protecting the trade and economic interests of the Belorussian SSR, retaliatory measures may be taken, upon decision of the Belorussian SSR Supreme Soviet, against countries which create discriminatory conditions for foreign economic activity by the Belorussian SSR.

In order to support the trade-political and economic interests of the republic and also to ensure fulfillment of

the international obligations of the Belorussian SSR, the Belorussian SSR Council of Ministers may institute restrictions and bans and set certain requirements for carrying on dealings in the field of international exchange of goods, services, and the results of creative activity.

Article 10. Responsibility for Violation of Laws on Foreign Economic Activity

Persons guilty of violating the points of the present Law and other legislative acts concerning foreign economic activity bear civil law, administrative, and criminal responsibility in conformity with the laws of the Belorussian SSR.

Article 11. The Present Law Will Go Into Effect On 1 January 1991.

N. Dementey, chairman, Belorussian SSR Supreme Soviet; Minsk, 25 October 1990

Estonian Law on Economic Border

914A0075A Tallinn SOVETSKAYA ESTONIYA in Russian 27 Oct 90 p 3

["Republic of Estonia Law: On an Economic Border of the Republic of Estonia"]

[Text]

Chapter I

General Provisions

Article 1. The economic border of the Republic of Estonia consists of a system of control points to defend the domestic market of Estonia.

Article 2. At the economic border of the Republic of Estonia, movement across the border of transport vehicles and the goods they are carrying is monitored and regulated, customs control is exercised over the import and export of goods, articles, money, securities, and precious metals, quarantine control is exercised, and measures are applied in the fight against crime.

Control over the movement of people across the economic border is exercised selectively.

The implementation of control over the economic border of the Republic of Estonia is ensured by the government of the Republic of Estonia on the basis of agreements concluded by the Republic of Estonia with the USSR, the RSFSR [Russian Soviet Federated Socialist Republic], and the Republic of Latvia.

On the basis of special agreements concluded by the government of the Republic of Estonia, a simplified procedure for crossing the economic border is established for persons residing on territories adjacent to the economic border of the Republic of Estonia.

The movement of subunits of the Armed Forces across the economic border of the Republic of Estonia is regulated through special agreements concluded with the USSR.

Article 3. In order to exercise control over the economic border of the Republic of Estonia, permanent or temporary control points are created and control is organized on roads, in trains, at railway stations, at airports, at ports, and, in the event of necessity, at enterprises, institutions, and organizations involved in the import and export of goods.

Article 4. The procedure for organizing control over the economic border of the Republic of Estonia and the types, quantity, location, and procedure for the construction and supply of control points is established by the government of the Republic of Estonia.

A portion of the automotive or pedestrian roads may be permanently or temporarily closed at the economic border of the Republic of Estonia in the manner stipulated by the government of the Republic of Estonia, or a system for the limited use of these roads may be established.

Chapter II

The Procedure for Crossing the Economic Border of the Republic of Estonia

Article 5. Persons crossing the economic border of the Republic of Estonia are obligated, at the demand of the employee exercising control, to present documents certifying their identity.

Article 6. An examination of transport vehicles and of the documents for the goods they are transporting is carried out at the economic border of the Republic of Estonia.

So that the examination may be conducted, the drivers of transport vehicles are obligated to stop the transport vehicle at a sign from the employee exercising control, present to that employee travel documents, consignment invoices, and other documents for transport vehicles and goods, and obey the instructions of the aforementioned employee.

Chapter III

Customs Control, Examination of Mail, and Quarantine Control

Article 7. Quantity and cost limits on import and export goods are established by the government of the Republic of Estonia.

Article 8. For the period before the Republic of Estonia law on customs control goes into effect, the rules of custom control at the economic border are established by the government of the Republic of Estonia.

Article 9. Members of legislatures and governments of the Republic of Estonia and other states, diplomats, and

employees of permanent and consular missions are exempted from customs control at the economic border of the Republic of Estonia along with employees of local border self-governments according to special agreements.

Article 10. The rules for the import and export of cash, securities, jewels, and precious metals are established by the Bank of Estonia.

Article 11. The rules for the import and export of articles possessing historic, cultural, and artistic value as well as the rules for examining postal packages are established by the government of the Republic of Estonia.

Article 12. Quarantine control over the economic border of the Republic of Estonia is carried out according to procedure established by the government of the Republic of Estonia.

Article 13. Goods imported into and out of the Republic of Estonia may be subject to customs duties; the size and the procedure and timetable for paying those duties are established by the government of the Republic of Estonia.

Chapter IV

The Exercise of Control at the Economic Border of the Republic of Estonia

Article 14. Control at the economic border of the Republic of Estonia is exercised by employees of the police, the border guard service, and the Customs Department.

Article 15. When carrying out their official duties, the legal status of employees exercising control at the economic border of the Republic of Estonia is equivalent to that of employees of the police.

Article 16. The procedure for performing service and the design of uniforms and insignia of rank for employees exercising control on the economic border of the Republic of Estonia as well as the procedure for supplying them with special equipment are approved by the government of the Republic of Estonia.

Article 17. Employees exercising control at the economic border of the Republic of Estonia have the right:

1) To stop transport vehicles and to demand that consignment invoices and documents testifying to ownership of the transport vehicles be presented; to carry out an examination of goods, transport vehicles, and other articles in accordance with procedure established by the government of the Republic of Estonia;

2) To demand presentation of the appropriate documents for goods that are imported and exported using licenses;

3) To halt the import and export of goods in the event of a violation of established procedure for importing and exporting goods;

4) To demand presentation of the appropriate permits for goods, articles, substances, and assets that may only be purchased, stored, carried, and transported in the presence of a special permit; not to allow the delivery across the economic border of goods and other articles, including transport vehicles, without the required accompanying documents or other documents;

5) To open automobiles, wagons, containers, and cargo compartments and to unseal packaging and wrapping for examination;

6) To arrest persons wanted by the authorities;

7) To prohibit entry into or exit out of the Republic of Estonia of persons who do not have identity documents with them at the time of the examination;

8) To make up records of administrative violations connected with the violation of the established procedure for crossing the economic border.

Article 18. In the event of a violation in his zone of operations of the established procedure for crossing the economic border, the chief of the control point at the economic border of the Republic of Estonia has the right to examine cases of administrative violations and impose penalties in accordance with existing legislation.

Chapter V

Penalties for the Violation of This Law

Article 19. An illegal crossing of the economic border of the Republic of Estonia, opposition to employees who exercise control of transport vehicles, goods, and articles at the economic border, or infringement of seals and stamps, may result in a warning, fine, or confiscation of goods in accordance with existing legislation.

Actions directed against the persons of employees exercising control at the economic border may result in punishment as stipulated in criminal or administrative legislation.

Article 20. Employees exercising control at a control point of the economic border are subject to disciplinary, administrative, or criminal liability as established by law for their own illegal actions.

Material damages caused by the illegal actions of employees exercising control at a control point of the economic border are to be compensated as stipulated by law.

Article 21. Complaints concerning the actions of employees exercising control at the economic border are resolved by the appropriate superior state organ; in the event that the complainant does not agree with its decision, the complainant has the right to take the case to court.

Article 22. Customs duties and fines that have been imposed, as well as sums received from the sale of confiscated goods, are transferred to the State Budget of the Republic of Estonia.

[Signed] *A. Ruutel, chairman of the Republic of Estonia Supreme Soviet, Tallinn, 22 October 1990.*

Estonian Personal Income Tax Law Explained

914A0138A Tallinn SOVETSKAYA ESTONIYA in Russian 7 Nov 90 p 3

[Article by R. Baleva with interviews of Ants Merits, head of the personal tax division of the Estonian Tax Department, and N. Roose, deputy minister of finance of the Estonian Republic: "Minus 100, Not Taxable by Tax"]

[Text] On 26 October our newspaper published the Law of the Estonian Republic on Income Tax for Private Individuals. Judging from the numerous calls to the editorial offices, many things in it are still unclear to our readers. The Estonian Tax Department is now working out a circular on the procedure for instituting this tax. Because it cannot be published in the immediate future, I summarized the most typical questions and asked Ants Merits, head of the personal tax division of the Estonian Tax Department, to answer them.

[Baleva] There are readers who are convinced that the new law was developed only for those who are engaged in private entrepreneurial activity. Is that right?

[Merits] Not at all! It applies to all residents of the republic. In any case, every person who works and receives income here.

[Baleva] Point 1 of Part 2 Article 1 speaks of gifts as income subject to taxation. Does this mean that my birthday present to my husband, for example, must be included in the tax declaration?

[Merits] Yes, if you are the chairman of a cooperative and give your husband, a member of the same cooperative, a car bought with your enterprise's money. We recently had to review a case where a cooperative gave one of its employees a gift of 70,000 rubles to buy a dacha. Naturally, the recipient tried every way he could to depict this transaction as a pure gift.

[Baleva] So then, according to existing law income tax is not charged for a "gift"?

[Merits] If a private individual gives a gift to another private individual there is no tax; but if an employer gives it to his employee, yes, there is.

[Baleva] Point 3 of Part 2 Article 1 names property as an object subject to income tax. So it turns out that we are going to pay tax, for example, on our furniture, television set, dishes, and so on. You understand, of course, that I am exaggerating, but that is exactly what some readers are asking.

[Merits] The article here is talking about your income received from property. For example, if you rent out furniture and receive money for this, it will naturally be subject to the tax as a source of income. The same thing is true for a car, a house, and so on.

[Baleva] How are the tax inspectors going to check the income of residents of the Estonian Republic who receive it outside the republic (Point 1 of Article 3)?

[Merits] The person himself must truthfully indicate all items of income in the declaration. The Estonian tax services will monitor this together with the tax inspectorates of the other republics. Every local soviet has such a department.

[Baleva] Article 6 drew a very large number of questions. It talks about income which will not be subject to taxation. Things such as winnings from state lotteries, state pensions, assistance and compensation, stipends, amounts paid as alimony, and insurance compensation. Then Article 15 gives the same lists, but now they are subject to the tax. What is going on?

[Merits] You have to read more carefully. Article 6 talks only of **state** pensions, assistance, stipends, compensation, and winnings, while Article 15 relates to other sources. As for alimony, in the first case (Article 6) it is alimony **paid**, in other words expenditures; in the second case (Article 15) it is alimony **received**, that is income, and a tax will be charged against it.

[Baleva] Some income! The poor women! It seems to me that it is simply immoral to tax alimony. In any case, it is the children who suffer.

[Merits] A purely female approach to the matter. Nothing but emotion. In fact the total amount of money which the man will pay to his former wife as alimony will increase. And it will begin to be computed not from the "bare" salary, but from all additional earnings.

[Baleva] What changes will there be in the insurance system?

[Merits] With the transition to free entrepreneurial activity the employer will be able to insure his workers himself with the firm's money. And these payments, as expenditures, will not be subject to the tax.

[Baleva] Why isn't the income of deputies taxed?

[Merits] That is not right. They pay a certain percent from their salary, like everyone, according to the law. The only thing not subject to the tax is amounts they pay to cover expenditures related to their activities as deputies.

[Baleva] Is everyone who receives income in the republic obligated to submit a declaration to the tax department by 15 February 1992? What will happen with residents of regions that are far from Tallinn?

[Merits] Private individuals whose income is not subject to the tax based on Article 6 (which we discussed earlier) will not have to submit a declaration. Nor will a person who works for one employer the whole year and lives in one place. Tax payments will be collected from him automatically. The employee must include all additional sources of income which are not registered by the book-keeping department in the declaration and submit it to the tax department at his place of residence. The tax divisions of the local soviets in all cities of republic subordination and all districts are now being reorganized as tax departments. Unfortunately, there is a penalty for concealing income and understating or evading payment of the tax: it is 0.5 percent of the amount owed for each day of default.

[Baleva] Does the tax department of the Estonian Republic have enough personnel to monitor compliance with the law?

[Merits] At the present time we have about 300 employees for the entire republic. But we expect to increase our staff to 700, and we are also counting on new electronic equipment. In Finland there are 6,000 people working on this.

* * *

I want to stop our conversation with Ants Merits at this point. Here is why. I purposely did not take up the main point of the new law yet, the income tax rates. Article 6 Point 1 reads that "income to 1,200 rubles a year is not subject to the tax." According to what Ants Merits said, this minimum income not subject to tax applies to all persons without exception. But you do not read it that way in the table appended to the law (there is no sense in reproducing it here). I asked N. Roose, deputy minister of finance of the Estonian Republic, to resolve this misunderstanding.

[Roose] Most likely you and the readers did not understand that Point 1 of Article 6 indeed refers to all persons without exception. But it should also have been stated in the table that the amounts given in it are taken after the 1,200 rubles has been subtracted. I will explain with an example. The average salary in the republic today is 300 rubles a month, that is 3,600 rubles a year. We subtract 1,200 from that, and get 2,400. This is the amount that is subject to the 16 percent tax (the percent gradation is shown in the table). The result is 384 rubles a year. So in reality, if we start from the actual income of 3,600 ruble it comes out that the rate is not 16 at all, but just 10.6 percent.

[Baleva] Even less than the present 13 percent income tax?

[Roose] Yes.

[Baleva] Was this the only reason it was necessary to adopt a new income tax law?

[Roose] Of course not. The income tax law had to be amended in large part because taxes were charged only

on earned income. Other sources of income such as interest on depositions, dividends from stocks and other capital investments, and the like are now added. The transition to the new market relations is impossible without refinement of the tax system, which will now be closer to analogous tax systems of the developed countries. The other reason lies in the need to eliminate social injustice. The income of private entrepreneurs was not included in the general tax system before. There is probably no need to explain why. At the same time employees of state enterprises and organizations paid and pay full taxes on their salaries. The new law puts an end to this injustice.

[Baleva] In my view the new tax is especially advantageous to those who are making huge profits, that is, income in the tens and hundreds of thousands. In comparison with, for example, the USSR tax of 60 percent they will be pay much less. Is an influx of big capitalists to our republic expected?

[Roose] Yes, and that was one of our basic tasks. I am familiar with various European tax systems. Ours is perhaps the most correct.

[Baleva] You are one of the developers of the law. Did the Supreme Soviet of the Estonian Republic adopt everything you conceived?

[Roose] Generally, yes. Except for the proposal to legalize tips, for example for cab drivers and doormen. Our society still is not ready for that.

[Baleva] Everything is still before us. Thank you for the discussion.

Estonian Measures on Leasing Published

Law on Leasing

914A0120A Tallinn SOVETSKAYA ESTONIYA
in Russian 11 Oct 90 p 2

[Estonian Republic Law on Leasing]

[Text]

Article 1. Tasks of the Law on Leasing

(1) This law regulates leasing relations in the Estonian Republic, establishing the objects and subjects of leasing relations, the basis for the formation of their rights and duties, and the principles of exercise of rights and fulfillment of duties.

(2) Leasing relations in the Estonian Republic are regulated by this law and other normative acts of the Estonian Republic.

Article 2. Concept of Leasing Relations

(1) In leasing relations one person (renter or lessee) on the basis of an agreement for pay uses property belonging to another person (lessor).

(2) Leasing can be used in all spheres of activity not prohibited by normative acts of the Estonian Republic.

Article 3. Object of Leasing Relations

Any property, whose leasing is not prohibited by normative acts of the Estonian Republic, can be the object of leasing relations.

Article 4. Leasing Agreement

(1) A leasing agreement concluded for a definite term, or without an indication of the term, is the basis for the formation of leasing relations.

(2) A leasing agreement can be concluded through an auction.

Article 5. Parties to a Leasing Agreement

(1) The proprietor or title owner of leased property is the lessor. The title owner can be the lessor if this is provided for by the law of the Estonian Republic, agreement, or document appointing the title owner.

(2) A citizen or a legal entity can be a lessee.

(3) If a citizen residing outside the Estonian Republic, or a legal entity established outside the Estonian Republic, is a party to the leasing agreement, property located on the territory of the Estonian Republic is leased in accordance with the procedure established by the Government of the Estonian Republic.

Article 6. Rent

(1) The amount of rent and the procedure of paying it is established by the leasing agreement.

(2) The amount of rent can be changed by agreement between the parties. One of the parties can demand a change in the amount of rent if there is a change in prices, rates, payments, or depreciation norms regulated by the state, as well as in other cases provided for by the law of the Estonian Republic.

(3) In addition to the rent, the lessee pays the taxes provided for by the law of the Estonian Republic if the law of the Estonian Republic or the agreement does not make this the lessor's duty.

(4) The lessee has the right to demand a rent reduction if the terms of property use provided for by the agreement, or the condition of the property, have worsened owing to circumstances for which the lessee is not responsible.

Article 7. Transfer of Property to the Lessee

(1) The lessor must transfer the leased property to the lessee in the condition provided for by the agreement or corresponding to the function of the property.

(2) The lessor is not responsible for defects in the property stipulated by him during the conclusion of the agreement.

(3) If the lessor does not promptly transfer the leased property to the lessee for use, the lessee has the right to obtain this property from him on demand (article 225 of the Civil Code) and to demand compensation for the damage done owing to the delay in execution, or withdraw from the agreement and exact damages done to him owing to the nonexecution of the agreement.

Article 8. Use of Leased Property

The lessee must use the leased property in accordance with the agreement and the function of the property.

Article 9. Subleasing of Leased Property

The lessee has the right to sublease the leased property, or part of it, only with the lessor's consent if nothing else is provided for by the law of the Estonian Republic or the agreement. In this case the lessee remains responsible for the agreement to the lessor.

Article 10. Content of Leased Property

(1) The lessee must keep the leased property in good repair.

(2) The lessor must make repairs on the leased property at his own expense if nothing else is provided for by the normative act of the Estonian Republic or the agreement.

(3) If the lessor does not fulfill his obligations concerning the making of repairs, the lessee has the right to make repairs provided for by the agreement, or caused by an urgent need, and demand from the lessee compensation for the cost of repairs or that he cover it out of the rent.

Article 11. Belonging of Leased Property

(1) Leased property belongs to the lessor.

(2) Products produced with the use of the leased property and the income derived in the process, as well as the property purchased with the income obtained from the leased property, belong to the lessee if nothing else is provided for by the law of the Estonian Republic or the agreement.

(3) Buildings and installations built with the lessee's funds with the lessor's permission on the leased territory, which cannot be moved, belong to the lessor if nothing else is provided for by the agreement. On the expiration of the term of the agreement, or during its dissolution, the lessee has the right to demand compensation for their cost.

(4) Buildings and installations built with the lessee's funds without the lessor's permission on the leased territory, which cannot be moved, belong to the lessor. If the lessor demands their demolition, the lessee must demolish them at his own expense, or compensate him for the expenses connected with their demolition.

Article 12. Improvement in Leased Property

(1) If the leased property is improved with the lessor's permission, on the expiration of the term of the agreement, or during its dissolution, the lessee has the right to demand compensation for all the necessary expenses incurred for this purpose if nothing else is provided for by the law or the agreement.

(2) Improvements made without the lessor's permission, which are not removable from the leased property without damaging it, on the expiration of the term of the agreement, or during its dissolution, are transferred to the lessor free of charge.

(3) Improvements made without the lessor's permission, if they are removed without damaging the leased property, can be removed by the lessee if the lessor does not agree to compensate him for their cost.

Article 13. Buyout of Leased Property

(1) The agreement can provide for terms for a full or partial buyout of the leased property by the lessee.

(2) The normative act of the Estonian Republic can provide for cases when the buyout of leased property is limited or is not permitted.

Article 14. The Lessee's Independence in Economic Activity

The lessee himself determines the directions in his economic activity and disposes of the produced products and derived income and independently performs jobs and provides services in accordance with the normative acts of the Estonian Republic and the agreement.

Article 15. Renewal of the Leasing Agreement

(1) If after the expiration of the term of the agreement the lessee, in fact, continues to use the leased property and if the lessor had no objection to this before the expiration of the term of the agreement, the agreement is considered renewed for an indefinite term if nothing else is provided for by the law of the Estonian Republic or the agreement.

(2) On the expiration of the term of the agreement the lessee, who fulfilled the agreement in accordance with the requirements, has the priority right over other persons to renew the agreement.

(3) During the renewal of the agreement the terms of the agreement can be changed by agreement between the parties.

Article 16. Change in the Leasing Agreement

The terms of the leasing agreement can be changed by agreement between the parties. One of the parties can demand a change in the terms of the agreement only in cases provided for by the law of the Estonian Republic or the agreement.

Article 17. Termination and Dissolution of the Leasing Agreement

(1) The effect of the agreement is terminated on its expiration if the leased property is destroyed, becomes unfit for use, or is bought out by the lessee.

(2) A prescheduled dissolution of the agreement occurs by agreement between the parties. On the demand of one of the parties the agreement can be dissolved only on the basis of and in accordance with the procedure provided for by the law of the Estonian Republic or the agreement.

(3) If the agreement is concluded without an indication of its term, it is considered concluded for an indefinite term. Each of the parties has the right to dissolve such an agreement at any time, notifying the other party of this 3 months in advance if another term is not provided for by the agreement.

Article 18. Dissolution of the Leasing Agreement on the Lessor's Initiative

The lessor has the right to demand a prescheduled dissolution of the leasing agreement if the lessee:

1) uses the property not in accordance with the agreement or the function of the property;

2) worsens the condition of the property deliberately or through carelessness;

3) did not pay rent for 3 months from the day of expiration of the payment date if another period is not provided for by the agreement;

4) does not make repairs in cases when, according to the agreement, this is part of his obligations;

5) does not observe the terms of use of land and other natural resources provided for by the agreement.

Article 19. Dissolution of the Leasing Agreement on the Lessee's Initiative

(1) The lessee has the right to demand a prescheduled dissolution of the leasing agreement if:

1) the lessor does not fulfill his obligations concerning the making of repairs;

2) the lessor does not fulfill his contractual obligations to supply the lessee with material resources, including equipment;

3) the leased property is unfit for use owing to circumstances for which the lessee is not responsible.

(2) The lessee can demand the termination of the agreement if he becomes disabled, is considered incapable, is punished with imprisonment for committing a crime, or receives another punishment ruling out the possibility of further fulfilling the agreement. In all the indicated cases one of the family members, who lives or works together with the lessee, has the priority right to conclude a leasing agreement.

Article 20. Preservation of the Effect of the Leasing Agreement During the Transfer of Property to Another Owner

(1) During the transfer of the right to ownership of the leased property, or the rights indicated in part 3 of article 7 of the Estonian Republic Law on Property, from the lessor to another person the previously concluded agreement also remains in force with respect to the new proprietor or title owner if nothing else is provided for by the law of the Estonian Republic.

(2) In case of reorganization of the legal entity, which is not the proprietor, its rights and duties as the lessor are transferred to legal successors if nothing else is provided for by the law of the Estonian Republic.

Article 21. Preservation of the Effect of the Leasing Agreement in Case of the Lessee's Death

(1) In case of the lessee's death one of his heirs, who lived with him or participated in the fulfillment of the leasing agreement, has the priority right to demand that he be recognized as the lessee on the basis and terms of the leasing agreement in effect prior to this.

(2) The lessor can refuse to recognize the heir as the lessee if the personal qualities of the deceased lessee were the prerequisite for the conclusion of the leasing agreement in effect prior to this.

Article 22. Return of Property to the Lessor

(1) After the termination of the leasing agreement the lessee must return the property to the lessor in the same condition in which he received it with due regard for normal wear, or in the condition established by the agreement.

(2) If the lessee permitted a deterioration in the condition of the leased property, he must compensate for the losses incurred by the lessor as a result of this if he does not prove that the deterioration in the condition of the property occurred not through his fault. The fault of persons who were permitted by him to use the property (family members, houseworkers, sublessees, and other persons) is equated with the lessee's fault.

Article 23. Examination of Disputes Arising During the Conclusion, Fulfillment, Change, and Dissolution of the Leasing Agreement

(1) Disputes arising during the conclusion of an agreement are examined by an arbitration court or tribunal.

(2) Disputes arising during the fulfillment, change, and dissolution of an agreement are examined by a court, an arbitration court, or an arbitration tribunal.

Article 24. Protection of the Lessee's Property Rights

(1) The protection of the lessee's rights to the leased property is ensured on an equal basis with the protection of the proprietor's rights. The lessee has the right to obtain on demand the leased property from any illegal

possession and demand the elimination of obstacles to the use of this property and compensation for the damage done to the property by other persons, including the lessor.

(2) In case of a full or partial withdrawal of the leased plot of land for state or public needs the new land user compensates the lessee for the damage done. On the lessee's demand a plot of land of equal value is allotted to him in another place. At the same time, the agreement in effect until this time is either terminated, or changed by agreement between the parties.

Article 25. Responsibility of the Parties to the Leasing Agreement

For nonfulfilling and insufficiently fulfilling obligations assumed according to the agreement the parties bear the responsibility provided for by the laws of the Estonian Republic, or by the agreement.

Article 26. Leasing of Enterprise Property

(1) Enterprise property can be leased to one or several citizens and to one or several legal entities.

(2) A leasing enterprise can be instituted as a legal entity for leasing the property indicated in part I of this article. The procedure and terms of institution and activity of the leasing enterprise are established by the Government of the Estonian Republic.

(3) If the property of an enterprise is leased, workers of this enterprise have the priority right to conclude an agreement with equal indicators, regardless of whether a leasing enterprise is instituted or not.

Article 27. Leasing Contract (Leasing Within an Organization)

(1) The leasing contract represents a form of economic relations within an organization, on which leasing relations based on a leasing contract are built between the organization as the lessor and one or several citizens as lessees, who have labor or membership relations with this organization.

(2) Principles of the leasing contract are established by the Government of the Estonian Republic.

[Signed] *A. Ruutel, chairman of the Estonian Republic Supreme Soviet Tallinn, 26 September 1990*

Decree on Implementation

914A0120B Tallinn SOVETSKAYA ESTONIYA
in Russian 11 Oct 90 p 2

[Decree of the Estonian Republic Supreme Soviet on Putting Into Effect the Estonian Republic Law on Leasing]

[Text] The Estonian Republic Supreme Soviet decrees:

1. To put into effect the Estonian Republic Law on Leasing as of 1 October 1990.

2. To instruct the Government of the Estonian Republic by 1 November 1990:

1) to specify the list of property prohibited for leasing, as well as to establish the terms under which the buyout of leased property is limited or not permitted;

2) to establish the procedure following from part 3 of article 3 of the Estonian Republic Law on Leasing;

3) to establish the procedure and terms of institution and activity of a leasing enterprise, as well as principles of leasing within an organization (leasing contract);

4) to submit to the Estonian Republic Supreme Soviet proposals on bringing laws into conformity with the Estonian Republic Law on Leasing;

5) to ensure bringing the decrees of the Government of the Estonian Republic and other normative acts into conformity with the Estonian Republic Law on Leasing.

3. To establish that the effect of the Estonian Republic Law on Leasing does not apply to the rental of living quarters.

[Signed] *A. Ruutel, chairman of the Estonian Republic Supreme Soviet Tallinn, 26 September 1990*

Civil Code Changes

914A0120C Tallinn SOVETSKAYA ESTONIYA
in Russian 11 Oct 90 p 2

[Estonian Republic Law on Making Changes in the Estonian SSR Civil Code]

[Text] The Estonian Republic Supreme Soviet decrees:

To make the following changes in the Estonian SSR Civil Code:

1. To consider part 2 of article 1, article 3, parts 1 and 2 of article 243, articles 280-298, 348, and 349, and chapter 42 invalid.

2. To change the heading of chapter 27 and to formulate it as follows: "Rental (Leasing) of Property."

3. To change article 279 and to formulate it as follows:

"Article 279. Property Rental Agreement (Leasing Agreement)

"(1) According to the property rental agreement (leasing agreement) the landlord (lessor) undertakes to give the renter (lessee) property for temporary use for pay.

"(2) The property rental agreement (leasing agreement) is concluded, changed, and dissolved under the

terms and in accordance with the procedure established by the Estonian Republic Law on Leasing."

4. To change part 2 of article 347 and to formulate it as follows: "The provisions of part 1 of article 7 and article 8, parts 1 and 2 of article 10 and article 12, part 1 of article 15, and part 3 of article 17 and article 22 of the Estonian Republic Law on Leasing are applied to the agreement for a free use of property."

5. To replace in article 352 the words "with points 1 and 2 of article 293" with the words "with points 1 and 2 of article 18 of the Estonian Republic Law on Leasing."

[Signed] A. Ruutel, chairman of the Estonian Republic Supreme Soviet Tallinn, 26 September 1990

Hunger Not Foreseen Among Estonia's Economic Problems

914D0037B Tallin MOLODEZH ESTONII in Russian
26 Oct 90 p 1

[Article by Yu. Surov: "There Are Problems, But There Will Be No Hunger"]

[Text] In previous years, this measure, organized by the Central Committee of the Estonian Communist Party, would have been called a party-economic aktiv, but now it has become a conference on the subject "Concerning the Organization of Economic Activity in the Near Term."

The main speaker, Minister of Economics Jaak Leimann, talked about the difficulties the republic is now encountering. These difficulties are tied directly to the negative processes that are occurring in the Union's economy. There are no particular prospects for improvement in Estonia at present, and it is estimated that a practicable program for getting out of the crisis will take 10-15 years. Imports exceed exports by several times, especially if calculations are rendered in hard currency prices. Because of a shortage of fodder, there inevitably will be a reduction in the number of cattle next year. Fixed capital in all branches of industry has become obsolete, and the purchase of imported technologies has been impossible lately because of limited hard currency resources. This is already having an effect, and the problem will become more acute in the future.

The formation of a government plan of activity for next year is now in a stage of completion. The minister noted that the government's approach is realistic. Two aspects are considered paramount—how to feed the population and assure its warmth. These are the most important tasks. There has been a rich harvest of rye—the republic will be ensured black bread. The situation with white bread is not as good. We are not growing wheat, and the new program for the production of grains will bring results after several years. The outlook for acquiring wheat, as well as rice, is problematical. These are questions that are directly related.

There is already a draft agreement with the central organs on the delivery to Moscow and Leningrad next year of 30,000 tons of meat and 350,000 tons of milk in exchange for a half million tons of concentrated fodder. Nevertheless, the production of meat will drop next year.

The following figures were cited at the conference: Last year, 294,600 tons of meat on the hoof was turned over; this year, 275,500 tons will be turned over, and next year, 225,000 tons. Milk this year, 770,000 tons, and next year, 720,000 tons. Eggs, respectively, 269 million and 320 million eggs; potatoes, 375,000 tons and 550,000 tons; vegetables, 38,000 tons and 39,000 tons.

Now agreements have been concluded on the delivery of various kinds of products, raw materials, and materials for one-third of this year's volume. About 30 groups of specialists are working actively, traveling around the whole country. There are a number of complicated positions, including such a vitally important product as sugar. But the minister assured that there will be no hunger.

Jaak Leimann accused the Supreme Soviet of being slow to adopt laws that would promote extrication from the crisis. He noted that the republic, which was in the vanguard a year ago in the creation of laws, is now clearly lagging behind the others.

There is no clarity on the acquisition of petroleum products, gasoline, and fuel. This situation will become more or less intelligible in the middle of December. But for the time being it is possible to ascertain that the extraction of Union oil is decreasing, oil processing equipment has become obsolete, and the Union will gradually become a country that imports gasoline. Contracted deliveries are possible in the future through an organization, the alternative "Estontoplivo" [Estonian fuel], with corresponding price increments.

On the whole, economic reform is not giving the results that were expected a little while ago, the crisis in the economy is much greater, and the restrained introduction of a market economy cannot rectify the situation even a little.

There are problems with the acquisition of hard currency. The government has made a decision now, according to which 20 percent of hard currency profits is taken by the budget, five percent is returned to organs of local self-government, and the remaining lion's share goes to the enterprise. The central organs, apparently, do not agree with this position, because they have to pay off Union debts and conduct centralized purchases.

And although all of this is substantial, the main thing that the assembled aktiv assured is that there will be no hunger. This gives hope that the people, not hungry and full of strength, will continue to move ahead.

Ecological Risk Seen in Pursuit of Estonian Economic Independence

914A0097A Moscow SOVETSKAYA ROSSIYA
in Russian 25 Oct 90 Second Edition p 2

[Interview with D.V. Orlova, senior scientific staff associate, Baltic Sector, Council for Studying Production Forces, USSR Gosplan, candidate of geographical sciences. by V. Zenkovich, TASS correspondent: "Should the Door Be Slammed Shut?: A Polemic"]

[Text] On 22 October Estonia's parliament passed a law entitled: "On the Economic Border of the Estonian Republic." In accordance with this law, checkpoints will be set up as early as 25 October along the entire border between Estonia, the RSFSR, and Latvia. And so, having proclaimed its independence, the Estonian Republic has taken one more step toward breaking away from the USSR. Will this state be able to exist outside of the USSR without, at the same time, becoming dependent upon some other powers? Sharing her ideas on this score with a TASS correspondent is D. Orlova, senior scientific staff associate, Baltic Sector, Council for Studying Production Forces, USSR Gosplan, candidate of geographical sciences.

[D. Orlova] We need to proceed on the basis of the fact that in the present-day world no single country can exist in absolute independence from others. It seems that the leaders of Latvia, Lithuania, and Estonia are beginning to understand this. Because they are making efforts to create their own, Baltic market—modeled, to a certain extent, on the former sovkhos.

However, it will scarcely be able to fully provide for the needs of the Baltic states. I fear that, in chasing after the infusions of hard currency which are so vitally necessary for an independent republic, Estonia's Prime Minister E. Savisaar will have to issue the order to proceed to exploit, i.e., to mine, the phosphates whose deposits lie in this republic's northeastern section.

[V. Zenkovich] And what would be the harm in that?

[D. Orlova] When this deposit of phosphates was discovered in Estonia, it had to be "put on hold" immediately: mining and processing it would lead not only to the destruction of that region's environment, but would also endanger the lives of thousands of people. The fact of the matter is that these deposits are covered by a layer of the so-called dictyo-non-fossil-bearing shales, which contain radioactive elements. And we do not have the technology for processing and utilizing them. Moreover, this layer has the following characteristic feature: when exposed to the air, it burns spontaneously, i.e., is self-combustible. As long as the shales are covered by thicknesses of limestone, everything is normal. But if they are mined and brought to the surface, they will start to burn. With the runoff from rains, the radioactive elements would then penetrate into the subsurface ground waters, and an ecological catastrophe would occur.

Nevertheless, in connection with the extremely complex situation there, the following danger has arisen. Inasmuch as there is not much phosphate-bearing ore on the surface, and this raw material brings quite a high price on the world market nowadays, the present-day Estonian leadership might issue the order to exploit it.

[V. Zenkovich] Have such attempts already been undertaken?

[D. Orlova] I do not yet have any information on this score at my disposal. However, there are many examples which attest to frequent and poorly conceived attempts to earn hard currency in a variety of ways. Thus, scarcely had Estonia declared its independence, when Prime Minister E. Savisaar traveled to Sweden, where he discussed the matter of building a specialized oil port on the Estonian coast. Of course, a flourishing Scandinavian state does not wish to build an ecologically "dirty" production facility on its own territory. In exchange for certain hard-currency subsidies, as well as some insurance with regard to a "possible oil-and-gas blockade of Estonia—the Soviet Union," the present-day Estonian leadership has planned to sacrifice that region's nature and the health of its people.

Flying in the face of common sense even back during the period of "stagnation," the New Tallinn Commercial Maritime Port was built. Our Council for Studying Production Forces opposed its construction, and it seemed that our opinion was being heeded by the Estonian leadership at that time. But on one occasion, and completely unexpectedly, the country's minister of the merchant fleet, along with K. Vayno, the first secretary of the Estonian CP Central Committee, ceremoniously laid the cornerstone for the new construction project in the zone which Tallinn's inhabitants are fond of for rest and recreation. The newspapers "trumpeted" this event with pomp and circumstance. It was too late to turn back, and construction got underway. This monstrosity turned out to be extremely expensive to certainly highly placed persons.

Here's another example. R. Otsason recently traveled to Hungary and Austria, where he conducted negotiations regarding the printing of a national Estonian currency—to be called "kronas" [kroons]. The Danubian Bank promised credits for Estonia on condition that the Bank of Estonia have its own property by means of which the credits could be amortized in case of its bankruptcy. What property would these foreign partners agree to take "as collateral" in this case? According to Western criteria, the only worthwhile items in Estonia are the phosphates and shales.

[V. Zenkovich] But does Estonia have any other chance to earn hard currency and thereby "remain in the swim" as far as the matter of independence is concerned?

[D. Orlova] Only if the Soviet Union renounces its own property in this republic. Moreover, such a thing did occur as a result of the Tartu Treaty, which was concluded in 1920. In order to save the young Soviet

Republic, Russia was compelled to abandon in favor of Estonia all the industrial enterprises located on Estonia's territory. At that time these enterprises were evaluated at an approximate amount of 266 million gold rubles. In the interests of peace, the Russian government ceded to Estonia the territories East of Pechora and in Zanarovy; it also relieved the republic of the need to pay back its "Pre-Revolutionary debts" (stipulated as being more than 266 million gold rubles); and it paid 15 million rubles in gold out of the tsarist Russian gold fund.

Then the bourgeois government engaged in a number of very clever financial adventures or tricks, as a result of which it fattened up quite nicely. Let me cite just one example. The Krenholmsskaya Manufacturing Firm in Narva—an extremely large enterprise belonging to a Moscow company of merchants—was appraised at 14 million gold rubles. At that time one gold ruble was equal to 2.5 kroons. In the recalculation into kroons, the Estonian government appraised this enterprise at...12 million.

It is, therefore, now a matter of great concern for the Estonian side; they are disturbed, above all, by the issue of the Union property on their own territory. If the USSR "waves it hand" and grants such property as a gift, Estonia would then have an opportunity to create a certain base for developing its own economy.

Some businessmen from across the ocean have planned to allocate considerable funds for the purpose of aiding Estonia's individual farmsteads. At first glance, there is nothing harmful or bad in this. But we must take into account that it just might be possible that those "fat cats" over there will require something in exchange. What could it be?

At the time of the Estonian bourgeois republic England actively invested considerable sums in the development of Estonia's dairy-type livestock raising. Thus, the United Kingdom very rapidly turned Estonia into its own dairy bar, after which it began imposing its own purchase prices and dictating certain political conditions. Is history being repeated?

Furthermore, in my opinion, agriculture in Estonia is quite well developed. And the present-day calls for breaking up all kolkhozes there seems simply nonsensical or irrational. What is the sense, for example, in breaking up the Fishing Kolkhoz imeni Kirov, which makes millions in profits?

In general, I am very close to and understanding of the aspirations of this republic's people for independence. But to break off ties which have evolved for decades, to leave the Union and slam the door is a self-deception. I do not doubt that Estonia, when it comes to recognize its need for the USSR, will return to us on its own. The main thing is not to be in such a hurry to become hostages to Western banks and firms.

Estonian Difficulties With Market Economy

914A0084A Tallinn SOVETSKAYA ESTONIYA
in Russian 24 Oct 90 p 2

[Article by S. Vagin, SOVETSKAYA ESTONIYA correspondent: "Do We Have To Surpass America?"]

[Text] "No, we do not."

"Why?"

"Our naked rear will show."

That is an anecdote from the Khrushchev times. Acerbic, but true. High-sounding slogans, somewhat similar to today's rally slogans, were not backed up by economic calculations. We wanted to live better, more richly. Everyone knows what the outcome was. The whole world has seen our poverty. But lately I have been recalling this anecdote more and more often. We became so fascinated with politics that we completely forgot about economics. Even the famous IME [Self-Managing Estonia] actually turned out to be nothing more than a political document. And I fully share the opinion of A. Kyasper, director of the Tallinn Poultry Plant, who believes that the "present government of the republic does not have a goal-oriented plan for transition to a free market. That is why it rushes from one extreme to another." We are constantly convinced of the fairness of these arguments. And one does not have to go far for examples. The republic decreased deliveries of meat and milk to the all-union fund (incidentally, our counters have not richer as a result of this), and in response they cut back the sale of feed grain to us. On 12 September, our newspaper reported that 25,000 hogs were without feed at the Vilyandi Hog Complex. Similar signals were received from Khaapsalu. And one can understand the alarm of livestock breeders: Will they have to butcher the livestock this winter? After all, no one knows whether or not the farms will receive mixed feed.

There also was not an abundance of food products after raising the retail prices for meat and milk. And besides, where would we get them? Our industrial and agricultural production ended up in a difficult situation after breaking off union ties. They have to pay off suppliers of raw materials, metal, and equipment not with money but with that same meat and milk. And besides, it is not always possible to conclude these direct ties. They consider us unreliable partners. Here, for example, is a letter received by the Keyla Experimental Grain Products Combine from Voronezh Oblast:

"It does not appear possible to conclude a contract with you for delivery of chalk in 1991 until conclusion of a union treaty. Here are the reasons:

"1. It is unclear on what legal basis our relations will be structured and what bodies will resolve disputes between the parties.

"2. For the time being, it is unclear with whom we should conclude the contract—with an enterprise of a

union republic or with an enterprise of another state. As you see, this will determine the terms of the contract, price, payment in rubles or foreign currency, and so forth.

"3. With the transition to market relations, we must know how your enterprise can help us as a counter supplier and on what terms.

"V. Afanasyev, Deputy Director"

Similar letters are being received from Russia, Uzbekistan, Tajikistan, and other republics of the union. In exchange for grain they ask for furniture, refrigerators, consumer goods, and so forth. Naturally, the combine has none of this.

"Cutting back the sale of meat and milk to the union," says V. Popov, director of the grain products combine, "boomeranged on us. True, I want to emphasize right away, Moscow did not decrease deliveries of bread grain. So there should be bread. But things became more complicated with forage grain. Due to a shortage of it, in September the combine operated only at 30 percent of its capacity. We should have produced 16,300 tons of mixed feed, but produced only 6,800 tons. True, we no have begun to receive grain from kolkhozes and sovkhozes of the republic, but this is a paltry amount. We will not last long with this. I have no idea how we will operate next year. We may go bankrupt."

This is not the panic of the combine director, but the harsh reality. The combine receives 93 percent of its raw materials from the union. The reduction in centralized deliveries (the combine has to process raw materials directly from the wheels, as they say) is already leading to a curtailment in production and layoffs. Whereas before the combine had four shifts working, it now has three. The management is not sure that it will keep the collective it has now.

"Whereas before," says director V. Popov, "when relations with the union were normal, raw materials were received regularly, now you cannot say this. They give us data for the month, and God only knows what will be next month. We cannot even guess about the more distant future. It is not just a matter of deliveries here. Our Ministry of Agriculture, in our view, does not have a clear concept of rural development. Toward whom do we direct our efforts? Toward the kolkhozes, sovkhozes, state enterprises, farmers? It seems that they do not yet have an understanding of this. Therefore, we also do not know what amount of mixed feed and of what quality the countryside will need. Now, for example, we have produced 6,000 tons of mixed feed; 4,700 tons of that went to poultry plants. But, you see, before we were producing 18,000 tons of mixed feed for livestock breeders. What, don't they need it now?"

Grain combines and the Department of Grain Products came forth with a number of proposals to the government to stabilize the situation. The fate not only of mixed feed enterprises and the rural area but also of us,

the consumers, will depend on how efficiently the government takes steps and concludes contracts for delivery of grain to the republic. Attempts by combines to make direct ties have so far been unproductive. For example, messengers sent by the Keyla Grain Products Combine to the Ukraine, Leningrad Oblast, Vitebsk Oblast, Tajikistan, Uzbekistan, and other points in the union returned with nothing. In exchange for raw materials, suppliers demand goods which not only the combine does not have but which the republic does not have.

"In the present situation," reasons V. Popov, "an exchange fund of commodities should be set up under the government and receive grain for them. Of course, this is reminiscent of feudal relations, but I do not see any other way out as long as we do not have a hard ruble and currency. There is also little hope of purchasing grain abroad. Incidentally, for the time being the union uses currency to pay for the grain which we receive from the United States, Canada, and Hungary. Imagine. Our mill alone processes 68,000 tons of food grain. A ton costs from \$160 to \$180 on the international market. We will still be able to settle up somehow with the union, but with the West—it is doubtful. Where would we get so much currency?"

"You will have to curtail production."

"In general, yes. Unless, of course, the government takes some emergency steps to increase deliveries of raw materials to us. Second, it finally should resolve the question of taxation. Until recently, we were withholding up to 86 percent from profits. Naturally, the remaining funds are not enough for the combine to develop normally—to assimilate new processing methods, modernize, and so forth. In order for us to become independent, the tax should be no more than 35 percent. But this issue also has not yet been resolved in the republic.

We were planning in 1992 to begin modernization of the mill, which at today's prices would cost around 2 million rubles; modernization of the mixed feed plant would cost 1.5-2 million rubles. According to our estimates, the mill would pay for itself in five years. However, for reasons which I have stated, it is risky to undertake such a costly job in our troubled times. If we are not sure about tomorrow, how can we try to guess far into the future.

The Vilyandi Grain Products Combine is preparing to begin operation. But I have my doubts as to whether it will operate. There are no raw materials. The new combine may end up in an even worse situation than ours.

...Uncertainty. You hear this word more and more often from managers of enterprises, kolkhozes, and sovkhozes. And it is understandable. As long as the government puts off until later the resolution of economic problems, concern about the future will begin to grow. And no matter how much we raise prices for food products, our piece of the pie will not get any fatter. Rather, the reverse will be true. We can appear before the world not only with a naked rear but also in our birthday suit.

RSFSR SUPSOV Appeal for Transition to Market Economy Deplored

914A0084B Moscow SOVETSKAYA ROSSIYA
in Russian 4 Nov 90 Second Edition p 3

[Letter to the editor by G. Shcherbovich, Leningrad: "Is It Not Better To Tell the Whole Truth?"]

[Text] One question disturbs us all today: Where are we headed and what awaits us? It is hard to get an answer to this question, and we also will not find it in the 9 October 1990 RSFSR Supreme Soviet Appeal: "To the Citizens of Russia." What is more, it evokes bewilderment and bitterness. The bewilderment comes from the contradictory nature of the document from beginning to end. Thus, this appeal is signed by the RSFSR Supreme Soviet, and by this sort of declares that our Russia is a socialist republic. The words "Russian state" and "Russia" appear in text of the appeal, and the word "socialist" is consciously omitted, that is, the socialist basis of our republic.

This puts one on guard and is disturbing. What is more, the appeal establishes the totally unfounded idea of rejecting socialism as a system of history. I would like to remind the authors of the document that they have "partially forgotten" history or do not want to know and recognize that it was socialism, not capitalism, that saved mankind from the fascist plague and gas chambers; that it was the October Socialist Revolution and the genius of V.I. Lenin that saved Russia and its peoples from the collapse in which they found themselves in 1917; and that in its 70 years of existence the young, still weak socialist state withstood ordeals, the likes of which not a single capitalist country has undergone. And by this socialism firmly established its worthy place in history.

In rejecting our life under socialism, the authors of the appeal immediately promise an almost heavenly life in 500 days. The market is asserted to be the panacea of this heavenly life. But the market has existed for thousands of years; it has been functioning in all social and economic formations, having developed more widely under capitalism. It was not socialism as a system that "did not stand the test of history;" it was our deviation from Lenin's legacy, from Lenin's concept of a new economic policy, from the use and development of commodity-money relations under socialism that did not stand the test and which also led to the shocking inequality of exchange between enterprises, sectors, regions, republics, and states (even within the framework of CEMA).

Let us recall Lenin's urgent teaching—"learn to trade." You see, we did not learn, and up to now we have been unable. Let us recall his recommendations on using material interest in building socialism, which provides unlimited opportunities to work and earn. Deviation from this principle has given rise to a leveling off, equality in poverty, and a dependency of able-bodied workers. Collectivization was a total denial of Lenin's concept of cooperation. The examples could go on.

But the authors of the appeal do not want to know this. They give us the lulling promise of a transition to a "civilized and refined" market, although they all know that the laws and demands of the market are harsh at all times. A "civilized and refined" market—is this not just another myth? After all, we are already experiencing for ourselves how "refined and civilized" cooperative operators, having taken us by the throat with high prices, are making incredible profits. The authors of the appeal propose entering into free competition. A question comes up again. After all, capitalism of free competition is capitalism of the 20th century. They are probably asking us to rush recklessly into a period of 100 years ago. Of course, the market does not stand still; it develops. The market of a slaveholding society is not comparable to a feudal society, much less a capitalist society. And capitalism has known a market that was uncontrolled, a market of free competition, a regulated market. In capitalist countries, it is now basically regulated on the part of the state, using administrative, economic, and legal measures, and on the part of monopolies by concluding contracts and agreements, which limit competition and keep prices and profits high.

But a regulated market is also accompanied by a closing of enterprises, massive layoffs of workers, and inflation, which is confirmed by capitalist reality. Therefore, in reading about a "refined and civilized" market, I would like to understand specifically what kind of a market they are talking about—one without inflation, without unemployment, without closing of enterprises? For an unsubstantiated statement is unconvincing and not serious.

The appeal further asserts that the Russian state will ensure social protection for education, culture, public health, and for those who cannot provide for themselves: the elderly, the disabled, large families, and the rising generation. A question again arises: With what resources? You see, the national income of Russia has been decreasing intensively throughout the year, and by the end of the year the decrease will be five-seven percent. This is the first time that has happened in the history of the RSFSR. So, what have the Supreme Soviet, its leaders, and the government been doing throughout the year if Russia has been sliding downward so sharply? After all, the appearance of a huge army of unemployed is expected, which also must be supported. Is it not better to tell the people the whole truth about the social payment which the transition to a market will require?

As a result, the authors of the appeal ask us to support the "500 Days" program and ask for concentrated, intense, and calm labor and the strictest contract discipline. But, you see, our people do not know the content of the "500 Days" program. And why are they adopting a program which radically changes the fate of Russia without the coordinating with the people?

The bitterness from this appeal is caused by the fact that the RSFSR Supreme Soviet actually rejected the socialist choice of the people. This is also confirmed by the draft

law on ownership, where private ownership—the basis of exploitation of man by man—is given priority.

This is not accidental. Recently, a monstrous campaign of lies and slander was unfolded against socialism, socialist ideals, the October Revolution, and the founder of the Soviet state—V.I. Lenin.

This campaign is well thought out and planned and has a clear-cut goal—restoration of capitalism; this goal is being accomplished along three directions: undermining and shaking the economy and exacerbating existing difficulties; deideological demoralization of society; and destabilization of the country's social and political life. Here there are also an organization of massive shortages and sabotage; intensification of uncurbed speculation; endless meetings at work; interethnic strife; and passage of unconstitutional laws and decisions that undermine the state, state discipline, and economic ties.

Fortunately, the organizers of strikes were successful only with the miners; the working class of other sectors, particularly rail transport, soberly assessing the situation and the consequences of this step, did not go for the appeals of the initiators. Nevertheless, even the miners' strikes dealt the country's economy an appreciable blow.

Well, the 'capitalizers' succeeded in organizing shortages: they have begun to emerge even in places they should not at all be. Here the restorers of capitalism are on a deideological front. All means are good for them here, too. The goal is clear: against a background of economic difficulties, discredit socialism and the socialist idea and evoke anticommunist hysteria. They

organize one rally after another and multiply the so-called "independent" newspapers, which are fully dependent on anticommunism.

The country's history is being turned upside-down; "great" writers who spit on V.I. Lenin and the October Revolution are exalted with gusto. And the Russian parliamentarians have already picked up on anticommunism. The Supreme Soviet applauds Yu. Zaytsev from Moscow for the proposal not to celebrate 7 November, the birthday of the Soviet state. And Supreme Soviet member V. Yeltsov went even further: he proposed declaring 7 November a day of mourning. The picture is the same: animosity, ill-tempered hatred, hissing at dissidents, and a massive psychic attack on the crowd. They are organizing the renaming of cities, streets, and squares and the tearing down and dismantling of monuments. Wipe from the face of the earth everything revolutionary and restore capitalism with its former attribution!

The 'capitalizers' see the Communist Party as the main obstacle in achieving their goals. Therefore, they have begun an unbridled attack on the communists of the country and on the socialist idea which it has proclaimed. Humane, democratic socialism does not suit them. Therefore, using the words of Lenin, there is an "endless abasement and self-humiliation of socialism before the entire world...and a corruption of the socialist consciousness of the working masses." How relevant Lenin's words are today!

But the goal of the policy of perestroyka is to renew socialism. It is precisely this goal that the people have adopted and supported. And the 'capitalizers' and restorers of capitalism must remember this!

AGRO-ECONOMICS, POLICY, ORGANIZATION

New Land Law's Ramifications Considered

Specific Articles Explained

914B0020A Sverdlovsk URALSKIYE NIVY in Russian
No 9, Sep 90 pp 9-10

[Article by A. Zabelyshenskiy, professor in the Department of Ecological and Agricultural Law, Sverdlovsk Legal Institute: "The New Land Law"]

[Text] On 28 February 1990 the USSR Supreme Soviet passed a new land law—"Bases for the Land Law in the USSR and Union Republics." It went into effect in March of this year. A resolution by the USSR Supreme Soviet, "On Putting into Effect the Bases for the Land Law in the USSR and Union Republics," was passed at the same time as the "Bases" were.

The "Bases" were not created out of thin air. They include all of the best of the previous union land law of 1968, but with a consideration of new realities.

The land law is an integral part of the family of ecological laws (on mineral resources, water, forests, the animal world and air) that interact among themselves. This is why it should be seen and used in practical terms with a consideration of these laws as well as of economic laws such as those on property, leasing, cooperation, common beginnings in local self-management and local industry in the USSR and a number of others that are still being prepared and that by their nature belong to this package.

The new land law was developed with a consideration of the transformation taking place within this country in the political and economic spheres, of new ideas about federation and of a new approach to the forms of management on the land. It takes into account contemporary ecological requirements in land use. In other words, the land law should be seen within the context of all changes taking place in society.

One of the principle (pivotal) problems in this law is the question of ownership of the land and of who the owner is. It gave rise to the greatest disputes when the draft of the "Bases" was discussed in the USSR Supreme Soviet. In previous "Bases" the land was recognized as state property both of the USSR and union republics (just as mineral resources, water and forests were within their respective laws). In this law the word "property" disappeared. In accordance with Article 3 in the "Bases" land is the property of the people living in the given territory. In the law, "On Property in the USSR," which was passed by the USSR Supreme Soviet on 6 March of this year, land and its mineral resources, water, vegetation and the animal world are included in state property. I feel that this solution to the given problem is more correct. The term, "property of the people" is tolerable in the law, but this is not a legal but a social-political concept.

As for the question of who is the owner of the land, from the ideas in the aforementioned two laws it follows that union and autonomous republics are. They have been given all of the rights of the owner—possession, use and disposal of. The USSR has been given the right to possess and use those parcels of land on which objects of national significance are located. To acquire additional parcels it must turn to union and autonomous republics and to other autonomous formations (see Article 20 of the law, "On Property"). Life will show how expedient this is, but it seems that the given problem has been solved from the position not of the federation (union government) but of the confederation (union of states) and without a consideration of the integration processes that are occurring in society within the economic sphere under the influence of the contemporary scientific-technical revolution as well as without a consideration of the unity of the USSR ecological system, which is becoming manifest to a greater and greater extent under the influence of the development of production forces. The solution to the problem of ownership of land and of other natural objects was affected by regional and narrow national interests that appeared within the USSR Supreme Soviet.

Among the undoubted advantages of the new land law we should include the further development of principles of land law such as the priority of the use of land by agriculture and the forestry industry before all others (Articles 8, 11, 36, 38); stable land use (Articles 9, 11); the coordination of land use and protection of the environment (Articles 14, 16, 17, 41-43, 50, 53); the coordination in land use of the interests of economic, ecological, sanitary-hygiene, health, scientific and historic-cultural interests (Articles 14, 16, 17, 24, 32-35, 41-43, 50, 53); land conservation (Articles 18, 19, 39-40, 53); payment for land use (Article 12); and protection of the rights of farmers and land users (Articles 41-44).

A new principle—that of legally equal development of all forms of management on the land and of equal opportunity—has been secured in the "Bases" (Preamble, Articles 24, 26).

Based on the general direction of perestroika toward the person (citizen), citizens have been put in first place among possible land possessors and land users. For the first time, an independent division has been assigned for them (III, Articles 20-22).

The "Bases" express special concern for minorities and ethnic groups (Articles 4, 14). In particular, it is written that proposals at the place of residence and economic activity of minorities and ethnic groups for purposes unrelated to their economic activities can be implemented according to the results of a referendum among these peoples and ethnic groups in accordance with the corresponding soviets of people's deputies (Article 4).

The composition of the land fund has also undergone changes (Article 2). Within it, an independent category of lands includes those that are of a natural conservation,

health, recreational and historical-cultural significance. Devoted to this land is the UP section of the "Bases" (Articles 32-35). Earlier this land was included in the category of lands for industry, transportation, communication, defense and other non-agricultural purposes. In the new decision on the given question we see first the special (non-economic) purpose of this land and second, the tendency to increase its size considerably.

The status of the land in village settlements has undergone a change. Up until now the majority of it was attached to agricultural enterprises (until 1968 it was simply a part of the land that is used for agricultural purposes). Now they must be confiscated from enterprises with a complete transition to their management by village soviets of people's deputies. Within the boundaries of agricultural settlements it is these soviets that make decisions about transferring land parcels for possession, use and leasing (Article 28).

The "Bases" give more attention than the previous land law to lands earmarked for agriculture. This is undoubtedly good. Other categories of land are given less attention than did the 1968 "Bases," and the last three categories of land (forest, water fund and reserves) are placed into one category altogether. This can hardly be proper from the technical-legal standpoint; a separate category is basically justified in that each of the aforementioned land categories has its own legal regimen.

The law contains many new resolutions. Previously there was a single entitlement for securing land parcels—the right to use it. Now there are three entitlements—possession, use and leaseholding (Articles 5, 6, 7).

In fixing limits on possession and use, the lawmaker is trying to secure a special stability for certain types of land use and to give the possessor a sense of being manager. The entitlement of land possession is earmarked first of all for land use for agricultural and forestry purposes. Land possession also extends to parcels that are allocated for citizens to build a house or dacha [summer house]. Lifelong, inherited possession of land parcels has been established for citizens.

The farmer has the right to independently manage the land (Article 16). State, economic and other organs and organizations are forbidden to interfere in the operations of landowners. Rights that are violated must be returned and losses incurred are subject to complete reimbursement through the courts or arbitration (Article 18). The law also guarantees land ownership with the confiscation of land earmarked for state or public needs (Articles 19, 39, 40). The list of rights and obligations of landowners (as well as of land users) is extremely extensive (Articles 16, 17).

There has been a change with regard to the transfer of the right to possess and the right to use a land parcel with the transfer of the right of ownership for building and construction. The principle, "the fate of a parcel is determined by the fate of construction," was in effect up until now only on city land and on land in settlements of

the city type. Now it is also in effect for lands of village settlements (Article 10). This is explained by the fact that these lands are being transferred, as has already been noted, into the management of village soviets of people's deputies.

The right of citizens to obtain land parcels for the building of individual dachas, which was revoked in 1960, has been restored (Article 20). With the right of independent primary land ownership land parcels are being provided for cooperatives of USSR citizens for collective cultivation of orchards and livestock raising (Article 23).

Special attention must be given to the possibility of forming cooperatives created on the base of subdivisions of agricultural enterprises as well as to land ownership by citizens who are involving in a peasant enterprise. These are new phenomena in our law which correspond to the idea of providing incentives for various management forms on our land.

Cooperatives that are being created on the basis of subdivisions of agricultural enterprises (with the exception of wholesale enterprises) and that leave such enterprises, upon the decision of the soviet of people's deputies are given land parcels from among the land that was cultivated by them previously with a consideration of the need to develop equal management conditions. These parcels are subject to confiscation from the land of the aforementioned enterprises (Article 24).

Here is another resolution. Members of kolkhozes and other agricultural cooperatives and workers of agricultural enterprises (with the exception of wholesale enterprises) who want to leave them and manage a peasant enterprise are provided with parcels taken from the land that belongs to the aforementioned enterprises by decision of the soviet of people's deputies with a consideration of the need to create equal management conditions. The parcels are supplied, according to the individual's desire, for lifelong possession or under lease arrangements. They include a plot of land at the farm. The limits on the size of land parcels are determined by local soviets of people's deputies with a consideration of regional features, specialization and the possibilities for cultivating the land being supplied primarily through the individual labor of the members of the peasant household (Article 25). As a rule the cadastral evaluation of the allocated parcel must be on the same level as the average for the enterprise. The laws of union and autonomous republics determine the preferential right of citizens to receive land parcels with a consideration of their work experience in agriculture, necessary qualifications and other conditions and factors (Article 25). For this special commissions must be created (oblast, and if necessary—rayon).

In confiscating land from agricultural enterprises to create a cooperative base there or to establish a peasant enterprise a question arises—do we need the consent of enterprises for this kind of confiscation of land parcels or

only an agreement between them and the local soviet? The "Bases" state that the order and conditions for providing land parcels is determined by the present "Bases" and by the laws of union and autonomous republics. Right now, in acting in accordance with the rights of confiscating land secured under Article 11 of the "Bases," we can assume that in the given case what is needed from enterprises is not consent but agreement, i.e. the clarification of their opinion. The rayon soviet of people's deputies, which receives its materials from the village soviet, must have the last word (Article 26). The consent of enterprises in the sense of Article 11 of the "Bases" is required in cases of confiscation of agricultural lands for non-agricultural purposes based on the principle of the priority of agricultural use of land and special protection of agricultural lands. It is expedient to allocate and prepare lands in one place for groups of peasant enterprises. In this case the problems of social infrastructure, material-technical supply and product sales can be dealt with better.

As for USSR citizens who are not workers of agricultural enterprises, to start a peasant enterprise they receive land parcels from reserves (Article 26) which can be replenished on an ongoing basis from among land for which the right to possess and use has been curtailed in accordance with Article 9 of the "Bases." This includes unused land parcels, land that has not been used effectively and land that has not been used for its stated purpose, and so on. Land management organs must systematically find land that is not being used or that is being used poorly and place it in the category of reserve lands that are to be used primarily for agricultural purposes (Article 38).

The "Bases" focus considerable attention on economically stimulating the efficient use and conservation of land. Land monitoring has been introduced, which is a system of controls over the condition of the land fund for the purpose of timely discovery of changes, their assessment, and the forecasting and elimination of consequences of negative processes (Article 47). Related to this is the very extensive division in the "Bases" concerning land conservation (X, Articles 41-44).

The sphere of legal and arbitration investigations of land questions has been expanded considerably (Article 52).

In characterizing the new land law, it is essential to also note the following: it significantly expands the competencies of union and autonomous republics in regulating land relations, which reflects the new view of our federation. The rights of local soviets of people's deputies have been expanded considerably in solving land problems. A very high level of ecologization has been achieved (in this regard it is incomparably higher than the 1968 "Bases").

For the complete implementation of the "Bases" we will need an entire series of legal and sublegal acts by the USSR and union and autonomous republics.

In the future until the land laws of the USSR and union republics are coordinated with the "Bases," the laws that are in effect now will be used. Article 12 of the "Bases for Land Taxes and Lease Payments for Land" will go into effect on 1 January 1991.

It is important to keep in mind that the "Bases" is a direct law and it must be used now to deal with the land relations that arise.

Ramifications of Land Reform Discussed

914B9020B Moscow PRAVITELSTVENNYY
VESTNIK in Russian No 38, Sept 90 p 9

[Article by E. Krylatykh, corresponding member of VASKhNIL [All-Union Academy of Agricultural Sciences imeni V. I. Lenin]: "On the Eve of Land Reform"]

[Text] In many countries thorough social and economic transformations began with land reform. In Russia they occurred on the crest of the social movement, political changes and the breakdown of previous economic relations and were transformed into the government's agrarian policy. These reforms were accompanied by extensive land changes and took place under conditions of increased social intensiveness and conflicts among various classes and groups in the population.

Much of what has been said can be applied in full measure to the land reforms of the 1990's, on the threshold of which we find ourselves. We must still do a considerable amount to implement them within an acceptable period of time and to have them bring us to the expected results.

I recall the days of work, interrupted by arguments, on the draft for the "Bases of the Land Law of the USSR and Union Republics" and on the draft for the resolutions of the USSR Supreme Soviet on implementing the law. Already then the following question arose before people's deputies and specialists: Will land reform be necessary within the country to make the transition to the new system of relations? Unfortunately, the supporters of land reform were then in the minority, not being able to eliminate firm stereotypes in the thinking of the majority. The resolution of the USSR Supreme Soviet uses the more imprecise term, "transformation of land relations," instead of the precise term, "land reform."

However, subsequent events showed that reform is the economic and legal mechanism that is absolutely essential for actually making the transition to the new structure of land relations as foreseen in the Land Law. What is our concept of land reform? What can its stages consist of? What end results should it lead to?

The concept of land reform is determined by the basic resolution, "Bases for Land Law in the USSR and Union Republics." First of all, instead of being the exclusive property of the government, land becomes the property of the people living in the given territory, and the right to

redistribute the land is fully transferred to the soviets of people's deputies (primarily city, rayon, village and settlement). Secondly, previously the only form of land relations was land use. In addition, land use was poorly defended from the dictates of departments, which strengthened the alienation of the individual from the land and deprived him of the feeling of manager. Now land that is earmarked for agricultural purposes is usually transferred to enterprises that are involved in agriculture as well as to citizens for starting a peasant enterprise, a private auxiliary or horticultural enterprise, or for building a private house. Moreover, the right of citizens to possess land parcels for life and to will them to family members is a new principle.

Today the legal foundation has been developed for a true transition to a multi-layered agrarian economy. All forms of land possession and land use are being placed under the protection of the law. Without the agreement of the landowner or land user land cannot be confiscated from him. Disagreements will be dealt with by the courts of by means of arbitration. Citizens who leave the kolkhoz or sovkhoz to manage an independent enterprise have been given the right to receive a parcel of land from among the lands of the given enterprise or from land reserves. In addition to lifelong possession and inheritance it is also possible to lease land.

It is also important that instead of practically free land use, land payments are being introduced in the country in two basic forms—land taxes or lease payments. Their size will depend upon the quality and location of the land parcel. Per-hectare rates for land taxes will be determined by the land laws of union and autonomous republics, and the size of the lease payment—according to the lease contract between the soviet of people's deputies and the leaseholder. The assets that are obtained from the payment of land taxes and lease payments will go to soviets of people's deputies and in part will be directed into the republic budget for implementing soil conservation measures, land arrangement and other needs that are related to the efficient use of land.

Another special characteristic should be noted. All land relations will be built on ecological principles. The preservation of land quality and increasing soil fertility are basic ideas in all land laws.

Evidently, land reform will take several years to implement fully. Union republics which are acquiring the status of sovereign states will be able to more fully take into account local characteristics and to develop the best schemes for implementing land reform on their territory. However, the stages for implementation will be approximately the same in any region.

The first stage is the real transfer of land to the administration of soviets of people's deputies in accordance with their competencies, which are determined by the republic's land codes. In order that soviets of people's deputies be able to carry out their functions of land

distribution they must have exhaustive information on land resources, their quantities, their quality and their level of use within the realm of a certain territory. Such information will be provided by a general inventory of the land and its cadastral land evaluation. For this reason, through the efforts of land-arrangement organizations with the participation of deputies and the population we must make an inventory of the land in every village and settlement soviet and in every rayon and city without delay.

The inventory must be completed by means of the composition of land maps with an analysis of the nature of land use and recommendations about its redistribution. It would be expedient to introduce some kind of legal document of the type of a state decree that could be used by the soviet of people's deputies on a higher level to testify to the right of village, settlement, city and rayon soviets to dispose of lands and territorial boundaries.

The second stage of reform is connected with the actual transformation of the land and the legal formulation of the rights of landowners or leaseholders. Enterprises, kolkhozes, sovkhozes and citizens will have to supply the respective soviets of people's deputies with a request to allocate to them land parcels either with the right to possession or to leaseholding. Previous land users can mention their desire to keep the parcels they retained earlier and may increase or decrease their size. Claimants for new land ownership or leaseholding must indicate the desired amount and, if possible, the specific location of the parcel. These requests must be examined by deputy commissions with the participation of land-arrangement services. The decision is made by the soviet of people's deputies. If the law is violated the matter is examined by the courts.

Land redistribution may give rise to social tensions, especially in regions with surplus manpower. Social tensions can be mitigated under conditions of extensive explanatory work among the population, the precise adherence to land codes and openness in decisionmaking.

Right now it is very important to develop regional predictions of changes in landownership structures. We can assume that unprofitable enterprises in sparsely-populated regions will reject a portion of the agricultural lands that they cannot utilize effectively. On the other hand, strong enterprises will try to expand their holdings. New peasant enterprises, cooperatives and horticultural partnerships will also make their claims on land parcels. The transition to market economics will probably strengthen the desire of private enterprises to expand production. Some owners of private plots will sooner than not state their desire to increase their share of land. We can also assume an expansion of the scale of private-home construction.

According to preliminary assessments, redistribution can affect up to 8 percent of the area of agricultural lands and up to 12-16 percent of arable land in the country as

a whole. These evaluations will differ considerably throughout regions. Predictions will enable us to determine the volume of work on land arrangement in connection with the confiscation and disposal of land and with bringing order to intra-enterprise land arrangement.

It would be correct to institute a system by which the state decree on land ownership or a lease agreement is created simultaneously with the development of the land-arrangement draft. But for this it is essential to considerably strengthen the land arrangement service and to increase the training of cadres and technical supplies.

The third stage of land reform is related to the assimilation of economic regulators of new land relations, including the mechanism of land payments; to the stimulation of improved quality of land and sanctions for ecological damage extending as far as revoking the right to land ownership; and to introducing compensatory payments and the reimbursement of losses when land is confiscated.

It cannot be ruled out that as the market economy develops a portion of land parcels will be included in turnover, i.e. will become an object of purchases-sales controlled by soviets of people's deputies. For this it will be necessary to introduce changes in land laws.

The three stages of land reform under examination are not separated by distinct boundaries—one flows into the next. At each stage a group of problems is solved, which will enable us to successfully move forward on the path toward reform.

What should the results of land reform be? First and foremost the land will be in the hands of assiduous managers who are capable not only of using it effectively but also of preserving and increasing its fertility. The producer will become the real manager of the products produced and of the generated income, which will affect the development of market relations with their normal competition mechanisms. Many abandoned villages will be rejuvenated and a peasant structure will develop in village economy. Kolkhozes and sovkhoses, in securing land for independent cost-accounting subdivisions, will receive a new impulse for development on the basis of the principles of cooperation.

With regard to the social sphere, the main result of land reform will be the revitalization of the peasantry as a true support of the country. The village lifestyle under conditions that are worthy of the individual is now acquiring the prestige that it so needs.

All of these positive results will undoubtedly outweigh the unavoidable problems, and possibly the social collisions related to reform as well. However, for this two conditions are required without fail—an extensive democratic base for implementing reforms with the complete consideration of every region and a precise, coordinated operation of organs that are specially created for this purpose.

It is completely understandable that the democratic nature of reform depends on the participation of the people in solving land problems. Various forms can be utilized for this—village meetings, open meetings of village (settlement) soviets, and discussions of land matters on television and radio.

Historical experience attests to the fact that special organs must be created in order to implement land reform. It appears that under our conditions it is expedient to develop committees on land reform attached to the supreme soviets of the USSR and republics and land commissions attached to local soviets of people's deputies. Their functions will include the development of the essential legal decrees, the preparation of drafts on the removal and confiscation of land and the examination of disputes.

It is important to create land-arrangement organs on the basis of existing services within the system of executive organs (councils of ministers of the USSR and republics, executive committees of local soviets) for the implementation of all work related to land inventory, allocation and land-arrangement. Evidently it will be necessary to form land courts that will examine land disputes. A sociological service will also be needed to observe the dynamics of public opinion and to predict niduses of tension in order to avoid social upheavals.

We will need economists, lawyers, land-arrangers, finance experts and sociologists for the effective operation of all of these structures. During the next 2-3 years it will be necessary to fulfill the most immediate need for such cadres by means of retraining. At the same time we must expand training of specialists in higher education institutions.

Our country stands on the threshold of extensive land reform. Society must clearly recognize the depth and scale of these important measures.

RSFSR Peasant Association Director on Movement's Progress

914B0010A Moscow SOVETSKAYA ROSSIYA
in Russian 27 Sep 90 Second Edition p 2

[Interview with A.F. Manshin, general director of the Association of Peasant Farms and Agricultural Cooperatives of Russia, by M. Chkanikov: "The Farmers' Trial Run"]

[Text] The Association of Peasant Farms and Agricultural Cooperatives of Russia (AKKOR) was founded a little more than a year and a half ago. This is a public organization that is called upon to aid independent peasants. During these days, when the Second Session of People's Deputies of the RSFSR is preparing to examine such important projects as a Land Code and a Law on the Peasant Farm, we are conversing with the association's general director, A.F. Manshin.

[Chkanikov] Several months have already passed since the Bases of Legislation of the USSR and Union Republics on Land went into effect but you must agree that the overwhelming majority of peasants has not jumped for plots and has not set about to divide the land of kolkhozes and sovkhozes into parcels.... About how many agricultural cooperatives and peasant farms are there in Russia as of today? What is their share in the production of output?

[Manshin] This is the figure that the State Committee for Statistics gives for Russia: today about 900 peasant farms have received documents for the lifetime and inheritable possession of lands. That is, their number has doubled since the Bases of Legislation on Land went into effect. I have reason to believe, however, that there are substantially more of them—about 2,000.

Nevertheless, overall I must agree with you: the formation of peasant farms and cooperatives has not yet become a mass process. There are, of course, reasons for this. In the first place, some farm managers and other managers of the agroindustrial complex and sometimes of rural and rayon soviets have no real interest in a transition to great diversity. In the second place, there are very simply not enough resources and money for the formation of peasant farms. The example of the association of peasant farms "Tver" is indicative here. Yes, its members were able to obtain land but as for loans.... Without money, they naturally cannot begin work and produce output, because, of course, the peasants do not have adequate savings of their own for this. In short, for now the peasants must go to very great efforts to establish their farms, because as a rule they are starting from nothing. This is why the Land Code and the Law on the Peasant Farm are needed like the air we breathe.

[Chkanikov] The draft of the Law on the Peasant Farm provides for the allotment of land to such farms, including through the land fund of the kolkhozes and sovkhozes. How do you see this process?

[Manshin] Let us define the terminology more precisely. Farms customarily called kolkhozes and sovkhozes are so different that it is difficult to compare them. A strong kolkhoz in Kuban, for example, is one thing and quite another is one somewhere in Kostroma Oblast: seven pensioners cut off from the world for six months by impassable roads. I think that the fate of such diverse farms must not be the same. I believe that in the foreseeable future those farms where industrial production is well organized—and I have in mind not only fattening complexes and poultry plants but also those kolkhozes and sovkhozes where normal everyday living conditions have been established for kolkhoz farmers and workers and where the production standards are sufficiently high—will not experience any serious changes. The disintegrating kolkhozes and sovkhozes are another matter. Previously it was customary to attach them to larger neighboring farms or to combine them but there were not enough hands to work the lands

on the margins of such giants. I am convinced that farmers must come to these places.

There is also a third intermediate group of farms that are not too rich but not absolutely poor. There are rather many such farms. I think that they require serious reforms. And some of them have already taken this path. In some places, they are being reorganized into cooperatives of cooperatives and elsewhere leasing is developing. In short, some practical steps are being taken on the way to reform. In the final analysis, it is apparent that today's main farmsteads of such farms will become unique centers, on the periphery of which individual and cooperative farms will develop. At the center, there will have to be a construction brigade somewhat similar to a machine and tractor station, auxiliary production systems and processing shops, purchase stations and, of course, all of that which is customarily called social, cultural and welfare facilities. At Krutishinskiy Cooperative Farm, where the chairman is V. Mironenko, member of the presidium of the AKKOR, they have essentially begun to establish precisely such a structure.

This is a scheme, of course. It does not take into account local peculiarities and the national traditions of the various people's of our federation but however that might be I envision a rich and flourishing countryside in the future.

[Chkanikov] Does this draft law suit you completely?

[Manshin] The Land Code of the RSFSR and the Law on the Peasant Farm essentially continue the policy that began with the passage of the Bases of Legislation of the USSR on Land. This document established the necessary preconditions for changes in agriculture but, as you recall, it did not stipulate a mechanism for the redistribution of land. The USSR Supreme Soviet decided at one time that the republics themselves must determine it. The Land Code of the RSFSR is precisely a document that regulates such a mechanism. In my view, this document may very well become the basis for the implementation of land as well as agrarian reforms.

They are not one and the same thing. Land reform implies a change in the status of all land users from industrial enterprises to proprietors of garages. It is long since time for it and I think that we are even late with it. But the Law on the Peasant Farm is closely linked with the Land Code of the RSFSR, which is already an integral part of agrarian reform, because it goes much further than a mere description of the mechanism for the allocation of land to independent peasants: it regulates their activities as a whole.

The first variant of the law was worked out by the organizing committee for the preparation and holding of a peasant congress. This congress, where the AKKOR was established, discussed and affirmed the original draft. After this, the document was modified by the RSFSR Ministry of Agriculture and Food and committees of the Supreme Soviet of Russia.

[Chkanikov] But from where will people come to rural areas, say to the Nonchernozem? Precisely the opposite process is still continuing....

[Manshin] First of all, I am not at all asserting that tomorrow we will wake up and the countryside will have been transformed. Any unforced reorganization—and only such a course is acceptable—must take years or decades. A state program for the gradual transition to new economic interrelations must be developed for this entire period. And a basic principle of the first stage must be the establishment of more attractive conditions in the rural areas than in the cities.

But one must not think that this means simply to build a palace of culture in every farmstead and to connect gas to every house. Living conditions are a very substantial factor but it is much more important for a person to be able to work freely in the countryside, to dispose of the output that he produces and to earn good money in the process. In short, to be the master of the land on which he lives and works, sure about the future of his children. It is necessary to establish the conditions in the rural areas that are most favorable for entrepreneurial activity and above all, of course, in the production area. This is when people will begin to return from urban apartments to private homes, from the plants and offices to the fields and farms.

[Chkanikov] But will the person who has walked on asphalt all of his life know how to plow, milk cows and feed livestock? Will it not be that yesterday's inhabitants of the cities, after having experienced difficulties and disappointment, will abandon the land just as easily as they did their well-ordered apartments shortly before that?

[Manshin] There is such a danger. One must not think that a person who received land today will never leave it, that he is tied to it forever. They do abandon the land and leave, not least precisely because of poor agricultural preparation. This is how it will be in the future as well and for this reason the draft of the law provides for the priority of the skilled individual in resolving the question of the allocation of the land. But we are quite able to influence this process and to help those who are starting out. And it is in this direction that the association is working purposefully to establish an orderly system for the training and retraining of the personnel of individual farms and agricultural cooperatives.

At the initiative of the association in conjunction with the Russian Academy for the Provision of Personnel for the Agroindustrial Complex, for example, a special new faculty has been opened for retraining and raising the skills of workers of peasant farms and agricultural cooperatives. The farmers will go through the first nine-month course at the beginning of next year. The program includes practical experience abroad, including in the United States, Holland and Great Britain. In addition, we were able to establish our own KRESTYANSKAYA

GAZETA [Peasant Newspaper]. It is now starting to come out regularly and we hope that it will be a great help to the peasant.

[Chkanikov] You complain that the state is not doing enough to help the peasant farms with loans and equipment.... But unconditional supporters of the kolkhoz-sovkhoz way of life think that if our agricultural worker had the equipment that the American farmer....

[Manshin] Unfortunately, our land has been badly neglected. Rural Russia lacks roads, schools and hospitals. The fertility of the soil is declining catastrophically and the still-weak individual farms cannot pay for any noticeable construction. The peasant farms are not well developed, they have no equipment, many of the farmers are heavily burdened with debt and they need very much more money to organize production as it should be. How can one count on our peasant being able to get along without the help of the state if even developed countries subsidize their farmers? The House of Representatives of the U.S. Congress, for example, approved a bill in accordance with which American farmers will receive \$54 billion in the next five years from the federal budget! State subsidies make up 75 percent of the income of the Japanese farmer. The farmers of New Zealand receive least of all from the state but even that is 10 percent of their income!

To leave the peasants without subsidies means to ruin them at unchanged purchase prices. If they are permitted to raise their prices as they like and again are not paid subsidies, the peasants will ruin the urban dwellers. They will have no other choice. And it does not matter at all whether the individual farms or the kolkhozes and sovkhozes are left without subsidies: the result will be the same.

And as for whether it is worthwhile to spend money on the farmer, I think that peasant farms can and will produce the output that it is difficult or disadvantageous to obtain under large-scale production.

[Chkanikov] What is in the future plans of AKKOR?

[Manshin] To achieve a more energetic implementation of agrarian reform, which would fundamentally change the position of the peasant, make his labor the most well-respected in the society and his living conditions worthy of the importance of this labor. And, of course, it would change the situation in the food market.

POST-PROCUREMENT PROCESSING

Efforts To Resolve Grain Procurement Problems In Ukraine Explored

Export Prohibition, Enterprise Debts Written Off

914B0026A Kiev PRAVDA UKRAINY in Russian
1 Sep 90 p 3

[Article by A. Gorobets: "Customs Control For Grain?"

[Text] The government of the Ukrainian SSR has forbidden the exporting of grain beyond the borders of the republic and it has decided to write off long-term credits for those farms which are fulfilling the goszakaz [state order] for grain and in the proper assortment.

Grain has always been a ruler of great politics. It is unfortunate that this fact is not understood by many individuals and particularly by many leaders of farms, rayons and even oblasts. Indeed, the republic is being supplied 100 percent with gas and grain harvesting combines from within its own borders, petroleum products—93 percent, trucks 80 percent, and lumber—73 percent. Sugar, sunflowers, meat, meat products, milk and dairy products are worthy equivalents for inter-republic exchange. And grain serves as the basis for the production of all of these products.

Although everything is understandable in the case of milk and meat, the interrelationship between grain availability in the state resources and the production of sugar and sunflowers, if you please, is not entirely clear. And it conforms to the law of connecting vessels. Here we have in mind a well adjusted mechanism for the counter sales of technical crops to producer-farms. The more sugar beets and sunflowers that are sold to the state, the more generous will be the forage supplies and the better will be the operation of a livestock husbandry department of a kolkhoz or sovkhoz. And the farms are striving to reach this point.

What will happen now?

This question, in past years, against the background of today's unprecedented high field productivity (according to estimates by specialists, the republic's gross grain yield will amount to not less than 53.5 million tons), would appear to be rhetorical. Alas, the new initiatives and independence are making the state grimace. By the beginning of autumn, only 13.8 million tons of grain had been poured into the state's granaries. This was almost four million tons less than the quantity needed. And in the absence of this grain, our sovereign ship of state cannot navigate the sea of life, in which it is confronted by strong storms caused by the newly introduced market economy.

The assortment of materials being placed in storage is arousing special concern. Indeed, the granaries contain 81 percent wheat. Roughly 10.5 million tons of it are required for all grain operations. And if a vehicle is today hurrying towards an elevator, it is again carrying this same grain. And the quantities of barley, oats and peas procured in response to the plan are 59, 53 and 68 percent respectively. A question springs to mind: what is available for producing groats and mixed feed?

Specialists have estimated that of the grain supplies available today only slightly more than one million tons can be set aside for mixed feed. But if the republic is to have the required amounts of milk, meat, eggs and fish, then the mixed feed industry must have at its disposal a grain supply of roughly 5.5 million tons. Thus, by

employing various additives, the branch's plants will be able to produce nine million tons of mixed feed from this grain forage. Of this amount, 3.5 million tons must be supplied to enterprises of the Ukrptitseprom system, one million tons to state enterprises of the Ukrzhivprom Association, 400,000 tons for the production of fish, 750,000-800,000 tons will be sold to peasants for their personal livestock and the remainder will be employed to stimulate the production of sugar beets and sunflowers.

If the state granaries are left half empty, then tomorrow we will experience a sharp reduction in the production of pork, beef, fish and poultry. A need will arise for closing the state poultry factories. This will adversely affect the private plots of the peasants. Sugar and sunflower production will decline considerably.

The republic's government has drawn the conclusion that a critical situation has developed in connection with grain procurements for the state's resources. A portion of the grain is being shipped beyond the borders of the Ukraine. Grain is being sold at speculative prices to representatives from various oblasts and republics.

All of the above was discussed over the telephone by the 1st deputy chairman of the Ukrainian Council of Ministers A.N. Tkachenko, as he addressed an appeal directly to the leaders of kolkhozes and sovkhozes and soviet and economic organs at all levels throughout the republic. He reported that the Ukrainian Council of Ministers has issued an instruction forbidding the exporting of grain and sunflowers beyond the borders of the Ukraine. In all probability, customs control will be established over these types of agricultural products.

The republic's government, taking into account the prevailing situation, has handed down a decision calling for the writing off of long-term bank credits for those farms which are selling grain today in accordance with the state order and in the proper assortment.

What does this mean?

It means that the purchasing of the four million tons of grain that are missing in accordance with the plan will actually cost the republic, as reported by A.N. Tkachenko, an additional 1.2 billion rubles. Thus the cost for a ton of grain would increase by an average of 400 rubles. Taking into account the recent increase in the purchase price for grain, a ton of grain will now cost the republic's budget, depending upon its quality, 700-900 rubles.

Is this expensive? Beyond any doubt. Nevertheless, the republic's government expects to undertake this step no later than 5 September in order to solve this acute grain problem that arose quite suddenly.

Should we take pleasure in or grieve over the generosity of the state treasury? Time will tell. But there is one question: will this not become a "stimulus" or reason for raising the prices for grain and baked goods which, as we

recall, were only recently categorically opposed during a session of the republic's Supreme Soviet?

Grain Withheld, Bread Shortages Threatened

914B0026B Moscow *RABOCHAYA TRIBUNA*
in Russian 5 Sep 90 p 1

[Article by G. Dolzhenko: "Should We Return To A Surplus Appropriation System?"]

[Text] This year the Ukrainian peasants harvested one ton of grain crops per capita. However, the farms are turning over the products slowly and unwillingly and the plans are not being carried out. There is even talk about a serious shortage of grain this winter.

Although they may only be rumors, nevertheless let us examine the figures. Of the 17.5 million tons of grain planned for procurement, the quantity needed to satisfy the food needs of the population according to calculations, the harvest figures fell short by two million tons of wheat and the same quantity of other crops, mainly feed crops. This indicates either that the grain situation will be very tense or that there will be very little else available with which to make mixed feed.

And here is why. After obtaining their economic independence, the agrarian leaders, without thinking, threw themselves into trade. The grain is being sold to customers in order to make a profit. Baltic merchants are purchasing it at 100 rubles per ton, Moldova—at 50 rubles and the state pays only 20 rubles per ton.

Cooperatives are buying up the grain in large quantities and selling it to whomever they have a mind to, including abroad. Many field workers are being motivated by the desire to realize a profit. Suddenly the consumption of cheap varieties of bread has increased sharply in rural stores. It turns out that the people intend to store their grain until the price for it goes higher or to sell it to consumer cooperation at high prices. Meanwhile they are feeding grain from the state supply to their own livestock and poultry.

Yes, even in the face of an unprecedented harvest, the livestock can be sent for slaughter and we can rely upon grain alone. Thus we recall the surplus appropriation system and production detachments. And what are they thinking about in Minzag [Ministry of Procurements]? There they view the situation as being hopeless: their arsenal includes only one fine in the amount of three percent of the value of the grain not delivered in accordance with the state order. But the farms were quick to realize—they lose 31 million in fines but receive five billion rubles from resale operations.

True, the Ukrainian Council of Ministers recently prohibited the exporting of grain and, by way of an incentive, called for grain deliveries to be used for the liquidation of farm obligations. However, it was believed that this was only a minor measure. For example, such

speculation should make it possible to reduce the deliveries of state resources—gas, fuel and electric power. Moreover, the problems of the peasants must be taken into account.

The obstinacy displayed in Gosagroprom [State Agro-Industrial Committee] was explained by fear of once again ending up in debt. Even in the face of such a generous harvest. Commencing with the new year, for example, the same mixed feed will be twice as expensive. It turns out that today the grain is delivered at one price and mixed feed is obtained at still another. And subsequently the prices for industrial products and consumer goods increase—what will be used for paying for these goods?

Mysterious events served to pour oil on the flames: the automatic equipment at mills in Gorbashakh in Zhitomir Oblast was consumed by flames. Almost simultaneously, similar shutdowns occurred at other enterprises in the cities of Talnoye in Cherkassy Oblast and Belaya Tserkov in Kiev Oblast. Is not someone responsible for the fact that our grain situation is not improving?

Report on May RSFSR Processing Industry Conference

904B0300A Saratov *STEPNYYE PROSTORY*
in Russian No 8, Aug 90 pp 25-27

[Article by M. Mullin, special correspondent for STEP-
NYYE PROSTORY: "Supplying the Peasant With What
is Necessary"]

[Text]

- The village needs fair prices.
- 100-percent state orders for agricultural products tie the hands of kolkhozes.
- Will there be an organ to protect the interests of the APK [Agroindustrial complex]?
- We should not rob the kolkhoz, but instead proceed from its interests.

In May of this year the All-Russian Seminar-Conference on "Improving Material-Technical Supplies to Consumers of the RSFSR Agroindustrial Complex" was held in Tambov. In the spirit of perestroika, seminar participants, including directors of supply services of the agroindustrial unions of autonomous republics, krais, oblasts and autonomous oblasts and okrugs, and directors of a number of rayon supply enterprises focused most of their attention on unsolved problems of material supply in the village and on prospects for the development of their services.

The country's accelerated transition to market relations makes new approaches to state planning necessary. Now centralized limits (assets) for material-technical resources will not be assigned, i.e., we will have to be

ready for the introduction everywhere of direct contract ties between producers and consumers.

However, existing experience has already brought out a number of problems that have had a negative effect on the agricultural complex's supplies. Numerous decisions by the government about the priorities of the APK have not worked. There is no financial or legal mechanism to assure this priority. In turn the village, in contrast to other branches, has been deprived of the opportunity to exchange its products with suppliers of machines and materials because an almost 100-percent (!) state order has been established for the products produced by the APK. The village has once again been artificially forced to be at a disadvantage as compared to the city! Thus a large number of the most important and essential resources remain inaccessible for the kolkhoz, sovkhoz or trade enterprise.

The discriminatory absence of price parity for products produced by the agricultural complex and those it utilizes was of great concern to the speakers. As a result this traditional and ever-increasing injustice to the peasants, who by habit continue to work ceaselessly, still results in losses. It is true that before the beginning of the seminar it became known that a resolution has been passed to raise procurement prices for grain (for some reason only for grain!), but after this we expect a general price increase. Misgivings are arising that once again the village may find itself in a disadvantageous position and...that there will be a new increase in the production cost for agricultural products. In this case a new increase in procurement prices would be necessary.

Evidently it is the sacred duty of the agricultural supply system to fight to make sure that during the transition to the free market, especially during this first stage, the APK can withstand calamitous, unforeseen situations involving material-technical supply. The second stage of this very difficult struggle comes of itself—in a free market the village must also be free to make sales! In other words, for balance with partners it is essential that state orders for the delivery of agricultural products be removed, at least partially.

On the threshold of the noted approaching events as well as in connection with the cost of developing republic and local cost accounting we need a single full-blooded agroindustrial complex supply organ attached to the USSR Council of Ministers, which will skilfully and weightily represent APK interests in all union organs that supply resources for agricultural production. At the least it is essential already beginning next year to give RSFSR Agroprom the right to protect and receive assets directly in the union's Gosplan [State Planning Committee] and Gossnab [State Committee for Material and Technical Supply]. Only in this case will there be a real possibility of defending the interests of the agricultural consumer with sufficient activeness.

Meanwhile...During the last 4 years we have had a second structural reorganization of USSR Gossnab. As a

result of this, one of the 26 wholesale-middleman associations, Soyuzmashzapchast [All-union machine spare parts association], alone will take 3.3 million rubles per year from the APK for the work which Glavagrosnab [Main agricultural supply organization] of the former Gosagroprom [State Agroindustrial Association] carried out for free. It is understandable that in the final analysis this money will be asked for from...enterprises, which cannot always make ends meet as it is. Such are the long-awaited "improvements"!

Whereas until recently attitudes toward independent purely-supply organizations was sometimes guarded, with the transition to the free market such middlemen are definitely essential because manufacturing enterprises will be physically unable to work with every individual kolkhoz, sovkhoz or RTP [Service and Repair Enterprise]. In the final analysis since ancient times in all countries merchants appeared without fail even though this class was not created by means of directive documents, that is, it arose naturally. This means that it was essential.

We must consider that direct ties are stable only when both parties, as a minimum, are interested in maintaining them. It is even better if the manufacturer of the product is interested in them more than the consumer. In the country we have a situation that is still the opposite of this. Plants that are monopolies are interested in creating a shortage and desire to be free of any obligations in order to sell their products to greater advantage. From this we have increased prices, and cases of direct extortion of food products. Seminar participants expressed concern that with the development of the free market and direct ties more chances to "succeed" would go to those who have resources to exchange. Already today a single kolkhoz supplier solves problems more successfully than the most experienced agrosnab [agricultural supply] worker because the meat or honey brought to him act more strongly than the decrees of Gossnab, a ministry or a department. On the one hand this is robbery and on the other—what should those enterprises that cannot "sweeten the pot" do?

In the opinion of V. V. Volgin, deputy chairman of the Uvarovskiy Rayon APO [Agricultural production association], Tambov Oblast, direct ties with plants often simply result in problems: "We are forced to accept their orders, send them our manpower...and through entreaties receive that which they are obliged to provide for us. Plants simply try not to produce parts that are not advantageous and those that are advantageous to them become non-liquid assets for us."

But while struggling for a "purity of ideas" it is possible to remain totally without resources. This is why the APK must be given the right, after revoking 100-percent state orders, to send a portion of its products legally for commodity exchange operations. After all, miners received this right, and not to the detriment of the state.

In this case direct ties will be more effective. It will be easier for the village to make the transition to the free market.

The speakers expressed the opinion that Glavagrosnab [Main Agricultural Supply Administration] must find a common language with GlavTER's [probably Main Territorial Administrations] and must further the declared priority of supplying agroprom unions with material and technical resources. Today the situation is a difficult one in terms of certain nomenclature items. In Kuybyshev Oblast, Gossnab did not secure welding equipment, cut-off fittings, glass, paper, insulating tape and so forth until mid-May. A number of territorial administrations did not fulfill the instructions of USSR Gossnab Chairman P. I. Mostov concerning the allocation of resources for the construction of above-plan housing. Suppliers of agroprom unions should not limit themselves to the role of requesters but should utilize the right to defend assets in Glavsnabs [Main supply administrations], to compose protocols for disagreements and to turn to arbitration. In some oblasts this work has been poorly organized, especially in Volgograd, Penza and Astrakhan, as well as in the Tatar and Kalmyk ASSR's. Meanwhile this is a mandatory and essential element in the activities of village suppliers. Otherwise the peasant will be left without resources.

A positive assessment was achieved at the seminar by the basically new middleman organizations created in 1988—information-commercial centers attached to territorial central directorates. All of them operate on a cost-accounting basis and successfully provide services in organizing economic ties between enterprises, organizations, cooperatives and citizens involved in individual work activities. They help to sell products, particularly by means of organizing fairs and exhibitions-sales. They study product demand and advertise. These centers help to find the correct product supplier and to sell surplus products. Such services should be created within agrosnabs on the local level. Underestimating timely information results in the fact that unused goods worth many millions of rubles lie as dead freight. At the same time in other places these very resources are being sought unsuccessfully.

It should be taken into account that under market conditions competition is unavoidable and that we cannot do without advertising, without full and efficient information and without supplementary assets.

A new direction in the work of agrosnab is supplying farm enterprises, cooperatives and leaseholders. Now equal rights have been secured on a legal basis for the existence of various forms of property. Leaseholding collectives and peasant enterprises are equal consumers of agricultural equipment, fertilizers, materials and GSM [Fuel and lubricating materials]. Moreover, at the stage of development of these economic links they should be given increased attention. For example, this kind of work is beginning in Penza Oblast. The sale of

small equipment (mini-tractors, motorized units, motorized cultivators and so forth) to all consumers is implemented according to retail prices through consumer cooperative organizations and firm stores of manufacturing plants.

Serious attention was given to the development of wholesale trade, which will give the consumer the opportunity to buy all he needs without orders, assets or limits—freely. Material-technical supply services must have their fingers on the pulse of the manufacturer, must react with sensitivity to changes in competition and with 100-percent supply of a particular item: must immediately transfer it into the wholesale trade nomenclature. In other words we must learn to really trade. After all, the days are not too distant when agrosnab will face a competitor—wholesale enterprises. Unavoidable price increases will result in the balance of supply and demand. Under such conditions the kolkhoz, farmer or leaseholder will select as middleman the one who, in addition to guaranteeing delivery, will provide his services at a cheaper price and with a greater selection of resources. In this way all actions of suppliers must be based on the desire to struggle for the consumer and for his interests.

Agrosnab is faced with the continued sharp increase in commercial trade. After all, under the new economic conditions and of sufficient available assets there will be a desire to replace the machinery fleet more often, yet the enterprise, farmer or leaseholder with a small amount of money will be forced to acquire equipment, even if it has been in operation, at a lesser price. Meanwhile, last year the volume of commission trade within the APK system decreased. Yet it is an important way to redistribute resources and to curtail the shortage.

The seminar was characterized by a creative search and successful proposals. Today retail trade is seen as a means of selling unused products that have accumulated on bases and with consumers, while at the same time it must become a supplementary source of profits for supply enterprises. After all, right now the majority of industrial enterprises are producing consumer goods; all kinds of cooperatives oriented toward mass demand are cropping up like mushrooms. Neither group has its own trade network. Agrosnab enterprises exist in every village region and their workers travel to all enterprises and they could, without detriment to their primary operation, become involved in the sale of these goods, thereby doing a good deed for the villager and making a little money as well. Retail stores will be very appropriate here.

Many kind words were said with regard to rental points. It makes no sense for enterprises, farmers or leaseholders to have as overhead expensive equipment that is used infrequently. It is more convenient for them to lease, for 1-2 days, machines for loading-unloading and building-installation operations, for soil cultivation and harvesting in orchard-vegetable cooperatives and on private plots. At the present time in RSFSR Gosagroprom there

are 117 such points in operation. During the last year alone they provided services worth 10 million rubles, but this is a drop in the bucket compared to actual demand. Positive experience in this direction exists in Ulyanovsk Oblast, where eight rental points have been created. The use coefficient for equipment is greater by a factor of 5-6 (!) than under normal conditions. There is a savings on assets for the consumer and the economic indicators for supply enterprises improve. But the main thing is that the shortage of technical assets seems to disappear, for any kolkhoz or farmer can obtain an excavator or a trailer, let us say.

Of considerable economic effectiveness for kolkhozes and sovkhozes is the assembly and adjustment of equipment in agrosnabs prior to delivery. Today there are 425 assembly shops in Russia. In the interest of enterprises it is very important to attach quality control services to them for machines arriving from manufacturing plants, to discover defects in a timely manner, to eliminate them and to take complaints as far as making claims.

In the opinion of speakers, considerable reserves can be found in the pre-sale preparation of resources, in a decrease in waste by means of efficient patterns and cutting of rolled metal and glass, cable-conductor products and in efficient bottling of liquids such as lacquer, paint and acids. In this regard suppliers owe a great debt to enterprises. Incidentally, there has also been positive experience, for example, in those same Tambov and Penza oblasts. With the formation of farmer and peasant enterprises the need for such services will increase immeasurably, and we must prepare for this immediately in order not to become a hindrance to the development of the movement.

The participants in the seminar-meeting have placed great hopes in improving central deliveries and complained that agrosnab has ceased paying the necessary attention to this. In some places it has been decided that for central deliveries it is sufficient to have a car, a driver and loading equipment. This is a misapprehension, because real central supply requires changes in the technology for the inter-storehouse processing of freight, frequent reconstruction of facilities and the freight industry, the organization of a dispatcher service and the shipment of accompanying freight from the enterprise along ring and radial routes. In the final analysis such work will not only ease the lives of kolkhozes and sovkhozes but will also result in a significant savings—one or two cars from the rayon agrosnab are involved in travelling the route instead of several cars coming from each enterprise.

Agrosnab is still not adequately utilizing new progressive forms of labor organization in its enterprises to improve material-technical supplies to the APK, but the positive changes here are very promising—collectives in 30 oblasts, krais and autonomous republics on 99 production plots have made the transition to collectives. In Belgorod Oblast the collective of the Yakovlev enterprise for MTS [Material-technical supply] increased its

income by a factor of 1.5 and labor productivity—by 57 percent by means of lease relations.

In the state-cooperative enterprise of Sudzhaagropromsnab, Tambov Oblast, after the transition of all services to leasing the management forgot about idleness of vehicles—brigades do not tolerate idleness, knowing that the penalty will come out of their pockets, nor do they tolerate theft—all workers know that theft has become a detriment to their own venture. Expenditures for technical services have decreased here—assemblers try not to take a single extra wrench from the storehouse.

Positive examples also exist in Penza, Ulyanovsk and Volgograd agrosnabs. But the Tatar and Kalmyk ASSR's remain deaf to this experience.

Many participants in the seminar-conference noted the lack of balance between the needs of the APK and supplies from manufacturing plants. There is a shortage of stackers everywhere. Tambov Oblast needs 1,500 of them but has only 700. Of these 50 are subject to being written off, and only 46 are promised for delivery. There is a shortage of YuMZ and T-16 tractors.

Arzhenka Sovkhoz of Tambov Oblast has spent 25 tons of electrodes for renovation in the course of a year, whereas only 3 tons were allocated to it.

Each year the oblast needs 200 sets of milk conduits but only 50-70 are allocated. There is no balance here in the delivery of combines, tractors or vehicles. Annual growth of the latter is less than 4 percent, which is significantly less than growth in the volume of freight shipments. Moreover, a significant portion of vehicles remains idle because of the absence of automobile rubber, but instead of increasing supplies...norms are being increased for number of runs made per tire! Industry does not even supply bottles for alcohol-free plants. Under conditions of a shortage of food products the largest dairy plant in the country, Kursanovskiy Dairy Plant, receives only 15 tons of special paper for manufacturing milk packaging instead of the needed 60 tons! As a rule, only the APK is brought to task for the shortage of products...

The delivery of lumber for the oblast's agriculture has decreased by half, and of slate—by a factor of 2.5. This is in contrast to the planned growth in the volume of building-installation work! Even if you do not want to, you are forced to ask: How should a farmer live?

A desire was expressed to deliver rolled metal directly to enterprises instead of to regular installation sections of the agricultural service, and to deliver electrical lines, cables and other electrical equipment to kolkhozes and sovkhozes instead of to Selkhozenergo [Agricultural energy association].

Attention was focused on the fact that in a number of oblasts the economic method constitutes a significant portion of building operations but for some reason there are no plans to allocate cement or rolled metal for them.

Who in the center knows how to divide materials that are earmarked for oblast enterprises? Assets should be transferred to the oblast and it will determine who needs what and who is able to assimilate them.

On the second and third days of the seminar-conference its participants travelled to oblast farms and enterprises.

Kolkhoz imeni 50 Let VLKSM, Sampurovskiy Rayon, showed what science could offer an enterprise. With the aid of specialists of VNIITiN [probably All-Union Research Institute for Equipment/Procedures and Science] (city of Tambov) a post for the conservation of equipment was created here, which increased the length of service of belts, chains and rubber and other parts. It organized a point for technical service, which decreased the expenditure of belt materials, oils and spare parts and installed a system of cleaning oils with a capacity of 100 liters per hour. The regeneration of 1 ton of oil costs 40 rubles. Now the enterprise is looking for "additional" oil within its own facilities. Within the APK system such equipment will produce a savings of petroleum equivalent to 2-2.5 million tons per year. Here a set of equipment has also been introduced for the practically immediate determination of the quality of lubricating materials. Incidentally, it is supplied by Smazka Cooperative of Ryazan Experimental Plant.

At Zherdevskiy Sugar Plant seminar-conference participants became acquainted with the organization of the supply service. In Tokarevskiy Rayon agrosnab is characterized by fully mechanized storehouses and excellent organization of practical work in the rental point, where there are 12 each of various equipment, including the very desirable automatic cranes, excavators, scrapers, bulldozers-loaders, a self-propelled roller, semi-trailers, trailers and dump trucks. Rayon agrosnab has created its own subsidiary enterprise with a cowshed and pig pens. Already today 54 kilograms of meat are produced per worker, and it is planned to increase this to 80-90 kilograms, i.e., up to the consumption standard. In addition to the fact that the rayon agrosnab worker can buy meat for 2 rubles per kilogram, he also does not find it necessary to look for products in short supply. Probably in particular for this reason too the association does not need to increase manpower.

Workers in the lathe shop demonstrated very convincingly the advantages of the information-computer center.

V. M. Belchenko, Deputy Chairman of RSFSR Gosagroprom, participated in the work of the seminar-conference.

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POLICY, ORGANIZATION

Vologda Co-ops Drop Out of Consumer Goods Production

914F0043A Moscow IZVESTIYA in Russian 10 Nov 90
Union edition p 2

[Article by V. Filippov: "Cooperatives Curtail Production"]

[Text] During the past year, 46 out of 118 cooperatives in Vologda producing consumer goods closed. Why did this happen?

For two days I called around to the Vologda cooperatives, and only V. Voropayeva, chairman of "Impuls," agreed to talk with me. "Do not take offense at my colleagues," she asked. "The cooperatives fear that publicity about their problems will complicate their lives. And I have already forgotten how to be afraid."

"Impuls" was created at the Vologda stitching and embroidery factory in fall 1987. And since that time it has struggled for its existence, but not at all with its competitors, which would be so natural and useful.

"Every month we put into production up to two dozen new models," V. Voropayeva recalls the beginning of the biography of the cooperative. "We see what people like, and prepare the pattern right away. I proposed to the factory director: 'Let us work up new models for you, like an experimental shop.' But she said no. Soon I understood why. The factory needed us for clever actions. When an unprofitable order comes in they trot it out to the cooperative and tell us to sew it. We sew it, and the factory counts these products in its own plan and sells them not for the state price, but for the higher cooperative price. Or here is another sleight of hand: The factory sells fabric and other materials to the cooperative, and enters them in its own plan for services to the population. We greatly disliked such fake documentation, but what is there to do, if the factory is our only source of supply?"

In fall 1989, V. Voropayeva recalls further, they summoned her to the city ispolkom: "Stop working, we are closing you down." "For what? What complaints are there against us?" "We will find some," they answer. And inspectors from the city finance department descended, three commissions in a row. But they did not find anything serious. Then V. Mogilevskiy, city ispolkom deputy chairman, says: "The stitching and embroidery factory rejected you; seek another sponsor for registration." Fortunately, "Vologdaglavsna" wanted to organize a cooperative. Now they are sewing primitive working clothes on its orders. And they are glad for this—they survived.

I was most struck in V. Voropayeva's story by the actions of the ispolkom authorities. It would be to their advantage to do the opposite—to support enterprising people who deliver at least something to the impoverished city market.

But here is a fact. In the course of the "purge" that the chairman of "Impuls" talked about, eight out of ten of the sewing cooperatives in Vologda were closed. It has long been known that our bureaucrats are above the law, good sense and the social good. And it is not even necessary to order it directly. A hint is enough.

"Not even a half year passed since the Law on Cooperation entered into force, before the departments began to clarify it." G. Sazonova, chairman of the "Yurist" cooperative, opened a thick pack of documents. "Here, say, in a letter of 14 December 1988, the USSR Ministry of Finance indicates that the material costs of cooperatives must not include expenses for training personnel, acquiring machinery, their delivery, assembly, and so forth. And the less that is classified as material costs, the higher income becomes, and thus taxes. With this letter in their hands, the oblast financial bodies began to re-count the incomes of cooperatives and take higher taxes from them after the fact, and even fine them for deliberate concealment of income. And neither a court, nor arbitration, examines complaints against the financial bodies. The procedure here is clever. You can complain only to a higher financial body. Which, as you yourself know, is senseless. In this way a half million rubles were 'taken' from cooperatives in the oblast. And on 11 May 1989 the Ministry of Finance issued a new instruction. In essence it acknowledged that the previous policy was erroneous. Nevertheless, not a kopeck of the sums taken was returned to the cooperatives."

I go through the papers in lawyer G. Sazonova's pack. They consist of either departmental documents, or "corrections" to the Law on Cooperation, chopping a new layer from the already scanty opportunities for enterprise. Here is a series of letters from USSR Goskomsen [State Committee for Prices], on the introduction of higher factors for raw materials, materials and equipment sold to cooperatives.

The Vologda Oblast Ispolkom inflicted the next blow upon the cooperative movement. At the start of 1989 it prohibited trade organizations in the oblast from selling even the most "stale" goods to the cooperatives.

Here is another coincidence. Prohibitions were imposed on the cooperatives in such a way that, whether they wanted to or not, they had to go to state enterprises for raw materials and materials. Today more than half of the Vologda cooperatives are leasing their means of production from factories and plants, and are buying 92 percent of their raw materials there. And the cost is several times higher than the seller himself paid. In this way costs of raw materials reach as much as 86 percent of the

production cost of products made by cooperatives. That is why their retail prices cause citizens of average means to shake their heads.

The registration of cooperatives at state enterprises was the beginning of the end of economic freedom, without which working for the market is senseless. Here is one recent example out of many. The administration of the Cherepovetskiy Metallurgical Combine closed the "Poisk" cooperative, which produced marvelous enamel-ware, solely because the cooperative's members dared to sell some of their products without the permission of the administration. To please their guarantors, many cooperatives hastily acquired new trades as some sort of subsidiary shops, concerned not about the needs of the market, but about the plans of their employers. Out of the 206 million rubles' worth of products that oblast cooperatives produced last year, only 16.6 million rubles were received from the sale of products directly to the population. And this year they have already curtailed 2.3-fold their output of clothing, footwear, furniture and other goods in short supply.

This, in my opinion, is the direct consequence of the most crushing blow against the cooperatives, which was dealt after the country's parliament approved a decree that halted the activity of trading and purchasing cooperatives. For some reason the local authorities interpreted this document as a signal to conduct a total purge of the cooperatives.

No doubt some of them really needed such a procedure, as did, by the way, representatives of the authorities. Recently criminal proceedings were instituted in Vologda against one of the city ispolkom officials, who was in charge of registration of the cooperatives, and for this, as it turned out, took money from them. But, frankly speaking, not even the losing side evokes sympathy, for the concept of lawfulness in the environment of the Vologda cooperatives is just as unstable as is their existence. A good half of the cooperatives have been closed by representation of financial bodies for attempts to deal underhandedly with the state. Half of the income in the cooperatives goes for wages. This is, so to speak, legal, and one can only guess about the sums that drift away by shady channels. For instance, in Vologda there are several dozen construction cooperatives, but only one of them is investing funds into the development of its production base.

It is not surprising that the new local authorities are afraid to link their plans for stabilization of the market with such fly-by-night enterprises. An oblast soviet session recently decided to increase the production of consumer goods. The cooperative sphere of the economy was barely mentioned in the extensive list of confidence-building measures.

The local soviets, in their programs of transition to the market, are placing marked stress on a new "favorite"—small enterprises. They are currently breeding like mushrooms after a rain.

"Enterprising people were inspired by the fact that the USSR Council of Ministers, in its decree, 'On Measures to Create and Develop Small Enterprises,' freed them from taxes for the first two years of operation," lawyer G. Sazonova opined. "But, on 1 January the law on taxation will enter force, and it speaks about such a benefit only for small enterprises of a certain type. What will happen to those that believed the word of the government?"

And I am worried not only about them, but about all the entrepreneurs.

GSSR Gosagroprom Aide on Problems, Market Transition

914D0004A Tbilisi ZARYA VOSTOKA in Russian
4 Sep 90 pp 1,2

[Interview with Yuriy Bolkvadze, first deputy chief, Georgian SSR Main Directorate for the Food Industry, State Agroindustrial Committee, by correspondent Konstantin Tsagareyshvili: "In the Grip of Problems"]

[Text]

K. Tsagareyshvili: On the way to the Agroindustrial Committee I was struck by a depressing picture: The shelves of the Tbilisi food stores are empty, and a hopelessly gloomy line of people is standing at the "Tabak" manufacturer's outlet store. There are no cigarettes, no candy, and disruptions in the supply of "Borzhom" water. Why is this taking place?

Yu. Bolkvadze: The situation is truly more than tense. I can, of course, speak about various circumstances that are contributing to it, but let us discuss the problems that are directly related to those branches of the food industry that are included in the system of our main directorate. Let us begin with the tobacco factories. In seven months of this year they shorted the consumer 2.265 billion cigarettes, or 19 million rubles' worth. This is a direct result of the grave situation in which the republic's tobacco industry finds itself today.

Let us begin with the fact that the technological equipment of its enterprises is hopelessly worn out and obsolete. Our tobacco factories are equipped exclusively with imported lines. They are manufactured in only four countries in the world—England, the FRG, Italy and France. The opinion exists that since it is imported equipment all the problems are solved. However, any equipment, even that of the highest quality, has its life span. Lines are installed in the tobacco factories that were assembled back in 1967. On the whole we have equipment that is 12-15 years old. They are fully depreciated. In order to maintain a normal working regime in the branch, spare parts costing a minimum of 300,000 foreign exchange rubles are needed annually. In the past five years we have not received one kopeck's worth.

Supply of the tobacco factories with secondary materials is extremely unsatisfactory. Here again the fact that we

receive them primarily from abroad has its effect. This includes cigarette and rim paper, foil, coating and many other materials. However, even deliveries to us of materials produced at enterprises in the country are very poor. This year, for example, the "Nairit" chemical combine in Yerevan was closed as an ecologically harmful enterprise. A similar enterprise in Leningrad was also halted for the same reason. And they were the main suppliers of PVA emulsifying agent, which is used in gluing the seams of cigarettes.

The low wage rates at tobacco industry enterprises also affect the decline in their productivity. I will cite this example. Two highly-skilled shift mechanic-regulators turn out products worth 1.4 million rubles in a month, and their pay based on eight-hour days is 220-250 rubles per month. This is the reason for their lack of interest and for various negative phenomena.

A rather depressing picture in general is formed from such problems. I must also say that this summer it worsened still further in connection with stoppages of enterprises for running repairs. In July, "Tbiltabak," the association's lead enterprise, and the Sukhumi Tobacco Factory were stopped, and in August a "Tbiltabak" affiliate and the Batumi factory.

K. Tsagareyshvili: Such stoppages are practiced every year.

Yu. Bolkvadze: Yes, but this time smokers felt it more acutely, since the industry had failed to deliver a certain quantity of cigarettes. For this reason there was no surplus, and in this period imported cigarettes ceased to arrive in the prior quantities. Nevertheless, we calculate that in September, when all the tobacco factories are working, the situation will stabilize. Here I want to say that our tobacco industry plans, in first priority, to satisfy the demand of the population within the republic for tobacco products. We will ship out of the republic mainly unfiltered cigarettes, which are not popular in Georgia.

K. Tsagareyshvili: And how is the situation with respect to satisfying the demand of the republic's population for confectionery?

Yu. Bolkvadze: Here as well we are able to satisfy it, except for high-quality products—bonbons. However, this branch also has many of the problems that we discussed earlier. Again there are stoppages of factories for capital repair. Today the Batumi and Kutaisi candy factories are not operating for this reason. Here I would like to note that the enterprise in Batumi is so depreciated that one can hardly speak about its full operation in the future.

The branch is experiencing the very same difficulties with supplies of materials and raw materials. More than 90 percent of the raw materials of confectionery industry enterprises in the republic are hauled in from the outside, including from abroad. These deliveries are being more and more disrupted. This year a serious problem

arose with providing glucose for the production of caramel. Over a seven-month period deliveries were 2,200 tons short. Accordingly, the candy factories underproduced caramel by 4,400 tons. Forecasts for providing the enterprises of the branch with raw materials in the immediate future are not comforting.

The same problems exist in the mineral water industry. The "Borzhomi" production association especially is in a state of crisis. The bottling lines from the FRG firm Zeitz, set up here in 1971-1972, are fully depreciated. Currently we are replacing them with lines from the GDR. However, a new problem looms—an acute shortage of bottles for mineral water. Great difficulties arose with the supplying of polyethylene boxes, bottle caps and labels.

K. Tsagareyshvili: You have painted a very unhappy picture.

Yu. Bolkvadze: This is so. Nevertheless, I would not want the reader to gain the impression that we have thrown up our hands. Everything conceivable and inconceivable is being done to ensure the normal functioning of the branches.

We do not have the authority to reexamine the wage rates at tobacco industry enterprises; however, we are taking steps to raise the real pay of their workers at the expense of the material incentive funds. The USSR Council of Ministers has been asked to allocate the republic at least two lines for production of hard pack cigarettes.

A new line, for the production of the "Assorti" chocolate assortment, brought in from the FRG, has been placed in operation. In Tbilisi they are planning to build a 7,000-ton capacity biscuit factory. This will significantly ease the burden on the "Tbilkonditer" association, which at present is simply panting from overexertion. With a design capacity of 12,500 tons per year, 28,000 tons of products are being produced here. Is it easy to work under such conditions? Judge for yourself.

We have already spoken about the distressing state of the Batumi Candy Factory. Here construction of a new enterprise has begun. Unfortunately, at this time work on it has stopped.

Other measures are also being taken. Nevertheless, I am not afraid to repeat that more hard currency resources are needed to make a fundamental improvement in the food industry branches I have named. And we do not have them.

K. Tsagareyshvili: The hard currency famine is a sign of the times. Various branches are trying to earn currency by expanding the output of their products to the foreign market, and by creating mixed joint enterprises with foreign firms.

Yu. Bolkvadze: I will tell you frankly. For today such opportunities in the republic's confectionery and tobacco industries are highly illusory. Abroad there are

few who are interested in these branches. Yes, and we are bound hand and foot in displaying our own initiative. For this reason we were forced to turn down a very tempting proposal to deliver two million boxes of "Assorti" to the foreign market.

Enterprises in the non-alcoholic beverages and mineral water industry have been more active and successful in popularizing their products abroad. This is especially true of the republic's "Vody Gruzii" association, which, as you yourself understand, has colossal opportunities, both for expanding the bottling of mineral water, and for increasing exports of its product abroad. Demand here is high not only for mineral water, but also for water from pure mountain sources.

The "Lagidze" manufacturing and trade firm is working successfully with its American partner, Rare Equities, Ltd, in organizing the joint company "Lagidze-USA" in New York. The "Kavkasioni" manufacturing and trading firm, created on the basis of the former "Tbil-fruktvod" association, is actively seeking foreign partners, and ways to increase its product quality.

K. Tsagareyshvili: I would like to discuss the question of the Georgian sugar combine separately. As is known, certain of the republic's rayons that produce sugar beets are supplying part of its raw materials. The opinion exists that under our conditions it would be better to give up the production of this crop.

Yu. Bolkvadze: I personally support this opinion. The neighboring rayons deliver to the combine 50,000 tons of sugar beets per year. A total of 3,500 to 4,000 tons of sugar are made from them. It would be logical to do away with this meager amount and shift completely to refining imported sugar. In this case the combine would be able to produce not 31,500 tons of sugar per year, but more than 80,000 tons.

K. Tsagareyshvili: One last question. How do you see the functioning of the republic's food industry branch under the conditions of the inevitable transition to a market economy?

Yu. Bolkvadze: I am absolutely in favor of shifting to a real free market. At first glance, perhaps, this sounds paradoxical, but I believe that the food industry enterprises, with the whole load of problems, those about which we spoke and those about which we did not have time to speak in our talk, will feel right at home under the conditions of a market economy. Most importantly, the enterprises will be freed from rigid plan organization, and will receive, finally, the opportunity to sell their products themselves, with all the positive aspects that this entails. Under the conditions of a market economy the food branches will undoubtedly raise their output, will begin to operate more efficiently, and will stand the republic in good stead in its acquiring economic and political independence.

HOUSING, PERSONAL SERVICES

Inadequacy of Consumer Services Discussed

914D0055A Moscow IZVESTIYA in Russian 22 Nov 90
Union Edition p 1

[Article by Yu. Rytov, under the rubric "Statistics and Our Commentary": "The Services Are the Same, But We Are Paying More"]

[Text] USSR Goskomstat [State Committee for Statistics] has reported that in the first 10 months of this year paid personal services (in actual prices) rose 7.1 percent as compared to the same period last year. The volume of these services was 53.5 billion rubles. This is 3.2 billion less than envisioned by calculations (94.3 percent fulfillment of the plan).

Paid services are perhaps the economic sphere where all the contradictions and lack of coordination of our troubled times show up most prominently and noticeably. Lord have mercy on the target assignment—we are long since accustomed to seeing our plans burst open at the seams. But to judge by statistical summaries, there is, nonetheless, progress in the service sphere: the volume of work is growing. But why then, in real life, do we get regression, not progress: constant complaints and setbacks for the very people whom the service sphere is supposed to serve?

You hail a taxi. The car slows, and the driver lowers the passenger window a crack. You give an address, and the car drives straight off, splattering mud. Why? You forgot to say the magic words: "Double pay." And in recent months even that has not always been enough. Drivers often demand hard currency. And if they do agree to take you for rubles, they squeeze out a hair-raising price, especially at night.

I am not giving this example by chance. After all, vehicle service is where we first tried to use privatization and permitted private "carriage." Now everyone is doing it: taxi drivers, private car owners, drivers of commercial vehicles. But there still are not enough vehicles, and the prices for transportation services—the unwritten prices, of course—have risen 2-3 times in the last year. Talk to any driver and he will give you a dozen "objective" reasons for the rise in prices. The gas shortage, which forces him to spend hours in gas lines. The lack of spare parts—the only way to get them today is from speculators for triple the price. Racketeering and robbery. And so on, and so forth. So it turns out that if you like to ride, you pay for it.

Similar processes are occurring in other sectors as well. The repairman "Uncle Vasya," who was once the standard, has now become the esteemed "Vasiliy Vasilyevich," who demands a lot of respect and a lot of money for his services. So let us take a serious look at what in fact lies behind the growth in volume of paid services mentioned in the statistical summary.

First of all there is the official rise in prices which, in conditions of an absolute and ever-growing shortage, leads to a new round of various forms of illegal extra payments. In just the first 10 months of the present year, prices for domestic services increased 6.3 percent. This includes 7.2 percent for custom knitted items. The increase for repairing domestic appliances was 7 percent, while for custom tailoring it was 4.6 percent. The prices charged by cultural establishments have risen 11.6 percent (13.7 percent for movies, 12.4 percent for concerts, and 11.4 percent for circuses). The cost of services provided by legal consultation offices has gone up 18.3 percent, while the cost of services by notarial offices has increased by a factor of 2.6.

And if we compare the growth in prices today with the growth in volume of paid services, it is easy to see that in reality the volume has increased because of higher prices; in fact we are marking time.

This is not a trend that appeared in the recent past; it is stable. This can be seen, for example, by the following figures. In the 4 years from 1986-1989 inclusively, the number of persons employed in the personal service sphere rose 3.7 percent. This is practically the same as the growth in population during the same time—3.6 percent! As a result, the actual use of services in our country lags sharply behind rational norms. According to calculations by specialists, for the country as a whole the per capita volume of services last year was 233 rubles. This is just 41 percent of the normative need. And in Uzbekistan, Azerbaijan, and Tajikistan, this indicator is two-thirds to five-eighths of the USSR average.

What does this mean in practical terms? Here is just one example. Last year, for the country as a whole, less than five kilograms of clothes per capita was washed (4-5 batches) in laundries, while for dry cleaning establishments it was merely a kilogram of items.

It is no surprise then, when our service establishments have that kind of capacity, that lines are the rule, not the exception. A study showed, among other things, that customers have to wait an average of one hour to get their order made up at one out of every three auto repair stations and at one out of every six housing, appliance, or furniture repair establishments.

Moreover, the receiving points are not open at the most convenient hours for the population. Only one-sixth of them work a shift and a half, and only six percent work two shifts. Eighty percent of receiving points are open on Saturday, and 20 percent on Sunday.

We cannot say that the state has not invested money to develop personal services. In 1986-1989, 3 billion rubles of capital from all sources was invested. But this was only 0.36 percent of the total volume of national economic investment in those same years. Furthermore, the money appropriated was used in an extremely unsatisfactory manner. The level of capital incorporation in

1986-1989 was just 68-77 percent for construction of laundries, baths, and laundry-dry cleaning establishments.

"So what about the cooperatives?" the reader may ask. "After all, they are exactly the ones we had great hopes for in this area."

Judging by statistical data, it would seem that everything is just fine with the cooperatives. The volume of personal services they provided last year reached 3.3 billion rubles. And their revenue was 15.5 percent of the total volume of personal services as compared to 0.6 percent in 1987. Nonetheless, they have not been able to alter the situation significantly. For one, the cooperatives often develop on the basis of existing state personal services establishments. And as we know, the overall total does not change because the components are shuffled. For two, the cooperatives quite often take the easier way, switching to orders from enterprises and organizations. The proportion of their revenue from service to individuals in 1988 was about half of the total volume, but in 1989 it was only one-third. The same trend is continuing this year.

What will come next? There are problems which evoke an unambiguous attitude. Indeed, a large majority of economists insist on the fastest possible privatization of trade and personal services enterprises. And this step is included in all the programs for the transition to market relations. We will hope that, in the very first stage, awakened personal interest will make it possible to make broader use of at least those capacities which we now have in the service sphere: increase the shift coefficient of operations, work on days off, and so on. We will hope that, in the second stage, the same personal interest will lead to a sharp expansion of the network of enterprises, while the competition that develops among them will put things in order. And then we will not be serving the service sphere; it will serve us.

Development of Projected Housing Market Assessed

Ukase Needs Calculated

914D0025A Moscow PRAVITELSTVENNYY VESTNIK in Russian No 43, Oct 90 pp 6-7

[Article by Doctor of Technical Sciences B. Kolotilkin, member of the USSR Architects' Union: "Housing-2000: Calculations and Miscalculations"; first three paragraphs apply to both articles]

[Text] The USSR President's ukase "On New Approaches to the Solution of the Housing Problem in the Country and Measures for Their Practical Realization" adopted in May envisages fundamentally new ways of forming the housing market. In the interest of safeguarding the citizens' constitutional right to housing the ukase gave the USSR Council of Ministers the assignment to develop, jointly with councils of ministers of the Union republics, an integrated system of measures for

solving the housing problem. In particular, the creation of conditions for a sharp, no less than double, expansion of housing construction volumes in all directions is envisaged.

Work on this important document, which will determine the country's housing policy, is going on in the USSR Council of Ministers.

Today PRAVITELSTVENNYY VESTNIK continues the discussion about how the housing market is being formed in the country and familiarizes [readers] with various points of view on this score. Thus, we are studying the problem.

Nowadays housing is being discussed no less than food. The acuteness of the problem of a roof over one's head is not diminishing and the line for improving living conditions is not being shortened. The USSR President's ukase "On New Approaches to the Solution of the Housing Problem in the Country and Measures for Their Practical Realization" openly states: "People are beginning to doubt the reality of every family's provision with a separate apartment or a house by the year 2000." I would like to share my thoughts on this matter.

In the calculations of planning bodies the concept of family is determined by a combination of three criteria: joint residence, kinship, and a common budget. The key criterion of the generally accepted concept of family—marital relations—is replaced here with a more easily accessible one—joint residence. On the other hand, a separate residence of a married couple, whose marriage is registered, "deprives" them of the right to consider themselves a family in a civilized society. But the smaller the calculated number of families, the smaller, naturally, the need for apartments.

In accordance with this statisticians single out three population categories: Those living with families, separately from the family, and single people. According to the 1989 population census, in the country there were 73 million families totaling 255.8 million people and 16.4 million single-parent families. Moreover, 13 million people, being members of families of two people and more, lived separately from them.

The total number of families and single people constitutes the number of households that should be provided with separate apartments. With due regard for the population growth, according to the planners' forecast, in the year 2000 there will be 97.5 million households, including 80.8 million families of two people and more and 16.7 million single-parent families. They will need 97.5 million separate apartments.

However, this figure is obviously understated. A total of 16.3 million people, who in the year 2000 will live separately from the family, were illegitimately taken out from the calculation of the need for separate housing. These are students, as well as young people—as a rule, workers aged 20 to 30—who are forced to while away the most creatively active part of their lives in dormitories.

About 9 million people lived there at the end of 1988. This is about 8 percent of the total number of workers who create the national income. Who has evaluated what damage has been done to their health, work fitness, and intellectual and moral level by the humiliating residence in dormitory bunks for years? In practice, the fate of formation of families by these millions of young people is connected with getting apartments. If there is an apartment, there will be a family. However, according to planners' ideas, they "already have apartments"... as members of families, from which the realities of life have led them to the path of "those living separately from the family."

Thus, by means of volitional methods several problems are solved at once: The need for apartments "decreases," the housing problem for this category of the population "is eliminated," and the "basis" for a report on a successful fulfillment of the housing program is ensured.

If this type of settlement is not stopped, in the year 2000 more than 16 million people will live in dormitories and private apartments. In order to provide [housing] for virtually every family formed by them, no fewer than 8 million apartments will be needed. This is in excess of the planned figure of 97.5 million.

According to the proposal by the State Committee for Architecture, for a temporary use as workers' dormitories it is recommended that apartment-type houses be built with their subsequent inclusion in the country's available apartment space. In our opinion, instead of bunk-type dormitories, apartment-type houses should also be built for students with families.

The miscalculation connected with the disregard in the planners' forecast for the growing practice of separate residence of parents and children is significant even more quantitatively. Adherence to "convenient" figures also finds place here. According to the 1989 population census, only 7.7 out of 73 million families (10.5 percent) did not have separate housing. However, the occupancy of multi-room apartments by "complex" families consisting of several generations (parents and children) is none other than communal occupancy, but only by families related by blood. In order to increase their living space during the future decade, the allocation of 15.5 million apartments is envisaged. With due regard for this at the beginning of 1989, in fact, the communal occupancy of apartments accounted for 31.8, not 10.5, percent, of the families and in combination with single-parent families for 28.3, not 12.7, percent. After all, the directive principle of every family's provision with a separate apartment by the year 2000 is being discussed. Furthermore, the need for housing for servicemen in connection with the reduction of the Armed Forces is increasing sharply.

With due regard for these data by the year 2000 the total number of households will be 97.5, not 122, million. The following question arises: How many apartments should there be by the end of the year 2000?

There were 81.5 million apartments in the country by the beginning of 1986. Before the year 2000, for a combination of reasons (including the demolition of houses owing to their sanitary and technical condition and consequences of disasters and interethnic aggravations...), 11.5 million apartments will fall out of use. Plans are made to build 40.5 million apartments during the 1986-2000 period, including 30 million during the decade of 1991-2000. Then by the year 2000 the country will have 110.5 million apartments. However, it is necessary to have 127.5 million apartments, of which 122 million is the number of households and 5.5 million, a reserve. Thus, the USSR Gosplan forecast creates... a shortage of 17 million apartments by the end of the year 2000 and with due regard for unhealthy apartments, of no less than 30 million.

The settlement of old citizens, disabled persons, and labor veterans is an important part of the solution of the housing problem. According to the estimates of the State Committee for Architecture, on the basis of the data of the State Committee for Statistics the forecast need for specialized housing for the indicated population group for the year 2000 is about 2 million places.

Together with auxiliary, recreational, and other premises the area per person in homes for old people, disabled persons, and labor veterans is approximately equal to the total area of an apartment for a single person. Thereby, by the year 2000 the need for boarding houses will be equivalent to 2 million standard apartments for single people. Through the size of the population and the number of families and single people they are taken into account in calculations.

The situation with the construction of boarding houses is worse. At the beginning of 1989 the total capacity of more than 1,500 existing boarding houses was only 400,000 places. In 1980-1987 boarding houses for 3,000 places were annually commissioned and in 1988, for 8,000. Dozens of years will be needed to create the boarding houses' total capacity of 2 million places. During that time the contingent of people living in them will not only be renewed, but their number will increase. Therefore, it is necessary to establish a system of social assistance at home, which will be capable of constantly servicing about 1.5 million people in the year 2000. So-called "communal apartments" are also necessary for numerous single people of different ages owing to the conditions of housing shortage in apartment-type houses, boarding houses, and guests houses for elderly and disabled persons.

Now it is not permitted to register for apartments relatives who take care of old people and later, after their death, will legally remain to live in these apartments. The instruction says: Take care of them, but you will not receive the right to the living space. Thus, old people remain without assistance and die alone in their empty apartments.

Society also has such a painful problem as the fate of numerous children living in boarding institutions—infants' and children's homes... In the country there are 7 million children who are disabled from infancy, that is, every 11th child out of the total number of children and adolescents under the age of 16 (at the beginning of 1987). In 1988 there were 63,000 places in boarding houses for disabled children. Housing must also be built for them.

We must tell ourselves the truth: By the year 2000 we will go only through the first stage in solving the problem of every family's provision with a separate apartment or a house. The following will remain by the 21st century: communal occupancy of part of the living quarters (including settlement by complex families), bunk-type dormitories, and the growing need for improving and developing the state service for social security for orphaned children, pensioners, and disabled individuals—development of a network of boarding institutions. Evidently, the following task will also remain: Smoothing out polarization in the provision with housing, which is much below the norm for some strata of the population (a total space of 5 to 10 square meters per person) and is just as noticeably above the norm for others (30 to 40 square meters and more) both on the scale of the country and of the Union republics and regions.

According to the country's population and housing census, at the beginning of 1989 a total of 36.7 percent of the families (without single people), or about 118 million people, had up to 9 square meters of living space per person. In the year 2000 no fewer than 50 million people will live under conditions below the norm of 9 square meters of living space. In its hygienic characteristics this norm is far from sanitary, because it is connected with an increased number of cardiovascular, nervous, and infectious diseases among people.

It is clear that without an outstripping development of the material and technical base it will not be possible to almost double individual, cooperative, and state housing construction volumes during the 13th and 14th Five-Year Plans.

Kiev Example Shows Difficulties

914D0025B Moscow PRAVITELSTVENNYY
VESTNIK in Russian No 43, Oct 90 pp 6-7

[Article by S. Shcherbachev, chief specialist at the Department for Territorial Development of the National Economy and Capital Construction of the Administration of Affairs of the USSR Council of Ministers: "In Order To Buy an Apartment..."]

[Text] A number of USSR Government decisions directed at speeding up the solutions of the housing problem, including the decree of the USSR Council of Ministers "On the Sale of Apartments in State and Public Housing to Citizens for Private Ownership," are now in effect.

This document enables executive committees of local soviets, enterprises, associations, and organizations to sell to citizens apartments occupied by them, as well as unoccupied apartments in houses subject to reconstruction or major repairs.

Let us see how the decree "works" in Kiev. It must be noted that the Ukrainian SSR Council of Ministers and the Ukrainian Republic Trade-Union Council have approved the Statute on the Sale of Apartments in State and Public Housing to Citizens for Private Ownership and Their Maintenance and Repairs. Preference is given to citizens who are on a waiting list for apartments or cooperatives, advanced production workers, participants in the Great Patriotic War, families of fallen servicemen and individuals equated with them, individual categories of servicemen, and other citizens having the right to get living quarters in state and public housing or to enter a house-building cooperative on a top-priority basis.

However, the sale of apartments in the city is proceeding, as the saying goes, with a big squeak. Residents of Kiev with a population of many millions do not rush to buy apartments. According to the data of the Ukrainian SSR State Committee for Statistics, not a single apartment was sold in the city in 1989 and only 64 apartments valued at 423,000 rubles were sold during the first quarter of this year. On the average, one-room apartment in a block house costs a little more than 5,000 rubles and a three-room apartment, about 12,000 rubles.

During the sale of apartments in a multi-apartment house problems arise when only a negligible number of tenants decide to buy the apartments in which they live. In this case what will a residential house combining state and private apartment ownership represent? Today specialists dealing with apartment matters cannot give a clear answer to this question. A situation has arisen where it is not convenient for an apartment renter to buy it, because, having invested funds and sometimes considerable at that and having become its owner, he must pay expenses for communal services—upkeep of the area near the house, cleaning of the entrance, electric power, water, and the sewage system. Moreover, the time of major repairs will come and expenses will also lie on the apartment owner's shoulders, while citizens who live in state and public apartments in this house will enjoy state subsidies for these purposes. Thus, tenants do not rush to buy apartments.

Probably, local soviets of people's deputies ought to sell apartments on preferential terms, or to begin to sell small houses for several families. Incidentally, in Kiev there are many two- and three-apartment houses.

There is also another problem. Apprehensions are expressed that bought apartments can become the object of speculation. The prerequisites lie in the difference between accounting prices, at which apartments are sold, and market (contract) prices. It is possible to easily "make a killing" only on the difference between

accounting prices of apartments in modern-type houses and those built several years ago.

Today people of pension age mostly buy apartments, because they can be left as an inheritance. In this case, however, it is not ruled out that apartments will pass into the possession of heirs, who do not have a special need for them, because they do not live under crowded conditions. It is not ruled out that for individual citizens this can become a source of unearned income.

Selling apartments to the people of Kiev, at the same time, local soviets try not to infringe upon the interests of badly-off citizens, who have been waiting for housing for years, but cannot bring closer the time when they will get it through the purchase of apartments. In order that the opportunity to improve housing conditions depend not only on the existence of savings, during the sale of apartments in state and public housing a line for them is established.

It is not without interest to note the experience of the Kiev City Executive Committee in the sale of residential houses built with state capital investments to housing cooperatives with a payment for the full value of purchased apartments by cooperative members. Today cooperatives, when residential houses are sold to them, pay from their own funds no less than 25 percent of the value of the house to the enterprises, associations, organizations, and executive committees of local soviets of people's deputies under which they have been established. The remaining part is paid by cooperatives in equal monthly shares during 25 years.

The first house was sold for its full value to a housing cooperative in 1988. This was an 88-apartment house with an estimated value of 1.16 million rubles. A housing cooperative was formed out of citizens who expressed the wish to buy apartments in this house for the full value (1,800 applications were received). In accordance with the contract the cooperative transferred the full value of the house plus a 15-percent increment for the fact that the house was located in the city's central part to the current account of the financial administration of the city executive committee.

Since there were many people who wanted to buy apartments for the full value, the city executive committee decided to sell three houses with 331 apartments to housing cooperatives this year. One of these houses with an estimated value of 2.794 million rubles has already been sold. The local budget received the funds from its sale, which proved to be not at all unnecessary for improving city finances, taking into account the deficit existing in the city budget. At the same time, receiving the full value of the residential houses sold to housing cooperatives also contributes to a balance of the population's income and expenditure. Furthermore, citizens who buy apartments can immediately occupy them in contrast to members of house-building cooperatives, who after making the first payment sometimes wait up to 2 years.

A number of Union republics made use of the experience of the Kiev City Executive Committee and also began to build residential houses with state capital investments, subsequently transferring finished projects to housing cooperatives formed by the time the houses were commissioned.

However, there are also some doubts as to the advisability of disseminating this experience. For example, in the opinion of the USSR State Committee for Construction Affairs, its wide introduction can lead to an aggravation of social tension and increase in social dissatisfaction, because it gives an advantage to the population strata that have funds at their disposal. At the same time, the rights of the least socially protected and low-paid segment of citizens, primarily those on a waiting list for improving housing conditions, who do not have sufficient funds for the purchase of apartments on such terms, are infringed upon.

At present, when an exceptionally acute housing problem exists and, at the same time, there is no housing market, the experience of the Kiev City Executive Committee could be introduced primarily in regions with a relatively high level of provision with housing, comparatively bigger rates of housing construction, and significant volumes of housing cooperatives.

Examining some problems connected with the sale of apartments and houses to the population in the country's individual regions, the decision on the transfer of state apartments to citizens for ownership adopted in June by the Moscow City Soviet of People's Deputies should also be discussed. It recognizes the right of every Moscow resident to privately own living quarters, because a significant number of Moscow residents, in fact, have paid with their labor for the cost of housing construction.

The Moscow City Soviet of People's Deputies decided to consider the capital's entire existing state housing under construction and reconstruction communal property as of 1 July 1990; to begin the conversion of state housing into individual housing through the transfer of living quarters to city residents for private ownership on a voluntary basis and free of charge within the limits of established socially guaranteed norms and with the observance of principles of social justice; to continue state housing construction, confirming its obligations to citizens, who are registered for living quarters in executive committees of rayon and Zelenograd city soviets of people's deputies, to provide them with well-designed apartments.

It is not yet possible to evaluate this decision, because there is no statute on the procedure and conditions of transfer of housing to Moscow residents for private ownership, sale of housing, and individual construction. The chief thing is not to depart from the basic goal, for the sake of which the decision has been adopted—concern for city residents and observance of principles of social justice for all population strata. In particular, problems connected with the payment for communal

services and work on major repairs of residential houses transferred to citizens for private ownership are not clear. Today they are solved with state subsidies, but after the transfer of housing to private ownership? If these expenses lie on residents' shoulders, will it not turn out that tenants' expenses on these purposes will exceed the rent that they pay now?

Severe Housing Shortage Persists in Kazakhstan's Quake-Hit Zone

904D0221A Moscow *RABOCHAYA TRIBUNA* in Russian 30 Aug 90 p 1

[Article by D. Samoylenko, OGNI ALATAU correspondent, East Kazakhstan Oblast: "Kazakhstan: Disaster Area—Resolutions Do Not Build Homes. Where Will People Live?"]

[Text] *In Zaysana, kids play only with building cubes. In any case, no other toys can be found in local stores. They use their cubes to build beautiful houses. Such houses easily fall down. Yet, they are the only houses in Zaysana that are built quickly.*

An earthquake measuring seven on the measuring scale struck on June 14 and leveled the manor of the "Karabulakskiy" sovkhcz. Only the sovkhcz office withstood it and remains standing among the rubble like a monument to authority. It alone was built conscientiously and meant to stand for years. As to the sovkhcz's labor resources, they generally dwelled in clay huts. The social infrastructure was no more durable than housing, which was duly recorded after the quake: "In Zaysanskiy Rayon, 3,147 homes, 150 kosharas, 23 stores, 16 public schools, 7 music schools, 21 public baths and 197 farms were damaged."

Two weeks later, Karabulak received assistance in the form of the republic Council of Ministers' resolution "On Measures to Overcome the Consequences of the Earthquake in East Kazakhstan and Semipalatinsk Oblasts." Old men claimed that clay-hut backwaters known as Zaysana had never before been given attention by so important an organization. But with all due reverence for the republic government, the locals expected it to come up with concrete actions, such as sending builders and construction materials, not make decisions on paper. But none was forthcoming. Instead, another document appeared a week after the Council of Ministers' resolution. This time, it came from the Alma-Ata Oblast ispolkom.

According to that document, construction organizations from the capital oblast were to be sent to the sovkhcz and build 362 insulated and quake-resistant dwellings before the advent of night frosts, which come in early September. Alma-Ata builders greeted the resolution of the Alma-Ata Oblast ispolkom as though it were a bomb. No one wanted to go God knows where and work there at an emergency pace.

The trusts "Almaataoblyazhstroy," "Kazpromventilyatsiya," "Prikaspiyskgidrostroy" and "Almaataremstroybyt" and the local branch of the All-Union Agricultural Academy imeni Lenin could not shift their resources to the disaster area in time. The management of the oblast center which coordinates rebuilding works at the sovkhoz fear that they may decide not to come at all, which means that they will not build some 50 apartment buildings for the quake victims.

Many of those who did come did not bring with them the necessary supplies to enable them to work actively and independently. Here, everything is in short supply, from cement to bed linens, and from food to dishes. But the villagers have no choice but to obey the laws of hospitality: they slaughter their sovkhoz cattle for their visitors, feed them at the sovkhoz cafeteria and share everything with them that can be shared in this land destroyed by the wrath of nature.

Every single family at the sovkhoz suffered in the quake. Here are accounts of two drivers from the third field crew:

"I work like an ox. They pay me very little, but there is no other job to be found here. My house was destroyed completely. I have rebuilt it myself from broken bricks. Where could I find building materials? The sovkhoz director could not help me. Nobody even knew how to build a house."

"My house, too, was almost totally destroyed. But we are still living in it. Are we hoping to get assistance? Are you kidding? No, we are not. We do not think that the builders will be able to build homes for all of us before winter comes. It may be better if we fixed our own house somehow. What if it falls apart? We will build a new one. What do you mean from what? From broken bricks. Everybody builds like this here."

M. Kenespayev, party committee secretary of the "Karabulakskiy" sovkhoz, summed up the situation: 2,000 villagers had no roof over their heads and 362 homes were destroyed. The Alma-Ata Oblast ispolkom resolution (which was dated July 6) mentioned the same figure: this was the number of homes the Alma-Ata builders were supposed to build this year.

In recent months, suspicious discrepancies began to crop up in the Alma-Ata press. GazTAG, citing revised data of the republic's Goskomstat, reported that the situation in the disaster area was critical. The results of the construction activity were more than modest. By the first of August, only 10 homes had been built in East Kazakhstan. Data provided to the press by the V. Krivoruchko, deputy chairman of the Alma-Ata Oblast ispolkom, was far more optimistic: in the "Karabulakskiy" sovkhoz alone 40 houses would be built during August. "By October 1," continued V. Krivoruchko, "we plan to build 150 permanent houses using oblast ispolkom resources and 60 houses privately." In other

words, this amounts to 210 houses before the first frosts. What about the rest of the villagers: where will they spend the winter?

The deputy chairman of the oblast ispolkom promised that over 150 temporary dwellings would be built as well. Period. The word temporary dwelling apparently should suggest that later (when?) their dwellers would move into solid buildings. However, builders themselves have a sarcastic saying: "Nothing is more durable than a temporary structure."

Not only houses were leveled, but lives were ruined as well. For the builders, Karabulak is an emergency construction site. For those who live there, it is a universe of suffering.

PERSONAL INCOME, SAVINGS

Quarter of Population Lives Below Poverty Level

914D0038A Moscow ARGUMENTY I FAKTY
in Russian No 45 Nov 90 p 1

[Article by G. Valyuzhenich: "Rich and Poor"]

[Text] According to the data of the USSR State Committee for Statistics, the differentiation of the population according to average per capita income—the principal index of living standard—is increasing. In other words, society is becoming stratified between rich and poor. In 1989 the incomes per family member of the 10 percent most well-off strata of the population were 5.6 times those of the least well-off 10 percent.

The number of people having a per capita income of more than 250 rubles had more than doubled over the past four years and equaled 28.7 million persons. Given our level of inflation (which last year came to 7.8 percent, according to official data, and to 11-15 percent according to unofficial figures), you will agree that it is not a great deal. Therefore, information about the differentiation of average per capita incomes above 250 rubles, which has been supplied for the first time by the USSR State Committee for Statistics to ARGUMENTY I FAKTY (see table), is unquestionably of interest. At the same time, as the table indicates, 71 million people had a per capita income under 100 rubles a month. Is that a lot or a little? It is by no means a rhetorical question.

Unfortunately, we do not yet have an officially recognized minimal subsistence income. The government cites a figure of 78 rubles. The USSR State Committee on Labor and Social Problems gives a level of 90 rubles, and the trade unions claim that it is about 130 rubles (in Moscow, for example, 151 rubles, 60 kopecks!). And what do the people say on this score? Data obtained as the result of a sociological survey of more than 100,000 people in all regions of the country indicate that more than one-fifth of those questioned named a sum of 101-150 rubles a month as sufficient for "survival." Nearly the same number cited 201-300 rubles a month;

one-third of those questioned believed that it was possible to get by on 151-200 rubles a month, and one in ten gave a figure of 300 rubles or more per month.

Of the respondents with an income per family member of up to R100 a month, 22.2 percent believed that level perfectly acceptable, and only 5.6 percent of that group of those surveyed would have liked to have more than 300 rubles.

Unquestionably, people's aspirations and their assessments of the "sufficiency" of their incomes depend on many factors. The lowest level of aspirations was noted among kolkhoz members and sovkhoz employees. Approximately one in four of them were satisfied with a sum of up to 100 rubles, while more than half were satisfied with from 101 to 200 rubles.

The level of per capita income depends primarily on earnings, which in our country, as we know, are among the lowest in the world. Granted, for a long time it was explained to us—and we, in turn explained it to you, readers—that the "insufficiency" of earnings was compensated for by payments from public consumption

funds (to which part of our earnings go). But let's take a look at just what we get in compensation. In 1989 payments from public consumption funds came to 187 billion rubles per year, i.e., to 650 rubles per year, or 54 rubles per month, per person, on the average (!). Fifty percent of those payments were in the form of money.

Well and now what are our earnings? In 1989 they were 240.4 rubles a month, on the average, for workers and office employees. In 1988 one in seven workers had earnings of more than 300 per month, and 3 million persons had earnings of up to 80 rubles. But such differentiation says little, since it does not take into account the rapid rise in the earnings of cooperative members, which came to about 500 rubles a month in 1989. The figure, of course, is an average. According to experts' estimates, which have fleetingly appeared here and there in the press, 500,000 people today have earnings of more than 3,000 rubles a month.

What sort of conclusion can one draw from everything that has been said? Alas, a sad one. If you take into account growing inflation, empty store shelves and a great deal else, it turns out that one-fourth of the country's population lives below the poverty level.

Population Distribution By Average Total Per Capita Income
(calculated on the basis of materials from a survey of family budgets and mass statistical data)

	Annual Mean Population Count					
	Millions of people			Percentage of total		
	1985	1988	1989	1985	1988	1989
Total population	277.2	285.5	286.7	100	100	100
Average total per capita monthly income, in rubles:						
under 75	49.6	36.0	31.7	17.9	12.6	11.1
75-100	54.8	44.7	39.2	19.8	15.7	13.7
100-125	53.6	50.2	46.3	19.3	17.6	16.1
125-150	41.7	44.9	43.5	15.0	15.7	15.2
150-175	28.9	35.0	36.1	10.4	12.2	12.6
175-200	18.6	25.7	27.4	6.7	9.0	9.5
200-250	19.0	28.8	33.8	6.9	10.1	11.8
250-300	7.2	12.6	16.4	2.6	4.4	5.7
300-350	2.7	5.3	7.7	1.0	1.9	2.7
350-400			3.6			1.2
	1.1	2.3		0.4	0.8	
over 400			1.0			0.4

[Figures 1.1, 2.3, 0.4, and 0.8 are published between last line and penultimate line in published table]

Alternative Joint-Stock Insurance Company Created in Armenia

914D0067A Yerevan GOLOS ARMENII in Russian
11 Oct 90 p 4

[Interview with Edvard Sandoyan by A. Gazazyan:
"Menua' Enters the Market"]

[Text] For the first time in Armenia, an alternative organization to Gosstrakh [USSR State Insurance Commission] has been created—the "Menua" Joint-Stock Insurance Company. GOLOS ARMENII Correspondent A. Gazazyan speaks with Menua SAO Board Chairman, Candidate of Economic Sciences Edvard Sandoyan.

"The Menua Joint Stock Insurance Company [SAO] has not been established in a barren place," says Edvard Martirosovich. "There already are such organizations in the country. Therefore, the creation of Menua was preceded by careful familiarization with the experience of the country's major companies. In addition, the sponsoring group was given the opportunity to become familiar with the actions of foreign financial organizations. Thus, one of the employees of the Masis Bank of Commerce, who is incidentally the owner of a portfolio of stocks and an original founder of the Menua SAO, was trained for two months at York University in Canada, and worked as a trainee at the Royal Bank of Canada, one of the Canada's major banks. There he acquired knowledge which is of practical interest to us. We have also managed to reach preliminary agreement with the Rossiya Joint-Stock Insurance Company on establishing close contacts with the Koloniya Insurance Company (FRG) which is one of the foreign partners of the Rossiya Insurance Company, and "Progress," which is the largest commercial insurance structure in the country.

"Thanks to the ties established with the Masis Bank, we have already begun to collaborate with Soviet-Swiss joint enterprise 'MENATEP-S-A,' which was formed on the basis of the MENATEP Inter-bank Association."

[Gazazyan] What sort of initial capital do you possess and who are your shareholders?

[Sandoyan] The Charter funds of the Menua SAO amounts to 700,000 rubles, on which 700 shares have been distributed at a cost of 1,000 rubles each. All the shares have been bought up by the founders. The Masis Bank of Commerce, of which I have spoken, is the owner of a portfolio of stocks, having more than 70 percent of the shares participating in the Menua Charter Fund. The executive committee of the Rayon imeni 26 Commissars Soviet of People's Deputies in Yerevan, the Soviet of the Armenian Republic Society of Veterans of the War in Afghanistan, and the Progress Joint-Stock Insurance Company each own seven percent of the Charter capital.

In the near future we plan to announce the opening of Menua stock subscriptions with right of purchase not only to organizations, but also to private citizens.

[Gazazyan] But why, Edvard Martinovich [sic], did you not declare an open joint-stock company right away?

[Sandoyan] Well, you see, in order not to become accustomed to formalism at the start, we wanted to earn some recognition, prestige if you wish, according to the results of the company's actions, and then later on enter the market with valuable papers, after declaring open subscription to Menua SAO shares. This will also serve as a means for increasing the Charter Fund, and attracting additional assets. But for the start, the charter capital is completely sufficient for us.

[Gazazyan] Please tell us what you will do in case the demand for insurance appears in amounts that exceed your assets? After all, an insurance company cannot take risks without adequate "risk" capital.

[Sandoyan] In such cases we shall resort to insurance and re-insurance (when several insurance firms operate with the same client)—a method widely utilized in the practice of Western insurance companies.

Along with this, we plan in the very near future to create a so-called "inter-bank re-insurance pool," after joining together on a mutually-profitable basis with the commercial and cooperative banks that already exist on Armenian territory, and in the future, to the extent that an independent banking structure is established in the republic—with all banks and their branches as a whole.

This will be an independent commercial structure without the rights of a corporate body, through which the Menua SAO will ensure the solution of two very important problems—the insuring of commercial risk of borrowers and protecting the financial interests of the banks in various banking transactions.

The fact of the matter is, that while working in the Masis Bank, we learned that today the growth of commercial activeness has largely slowed in the republic, because the majority of the potential borrowers are not capable of securing a credit agreement with the appropriate financial or property pledge or to find a guarantor organization, and these are the basic conditions for granting credit. And if a client (entrepreneur, cooperative, enterprise and the like) comes into the bank for a loan, who as they say "has not a cent to his name," the answer will be a refusal to grant a loan. And often people come here with interesting propositions. It is not proper to hold the bank to blame. After all, the first principle of activity of a commercial bank is to uphold its liquidity. In credit servicing a risk can be only the exception, and in no way the rule.

On the other hand, we are losing a lot of ideas and plans, and yes, simply the potential entrepreneurs who are thus unable to put their ideas into real action. And how many scientific ideas have already been lost—inventions, discoveries, capable of bringing considerable income to not only the authors, but also to society as a whole. Therefore, the "re-insurance pool," I am certain, will become

not only the structure which protects the financial interests of the entrepreneurs and creditors, but also an organization that guarantees the entrepreneurial success of all sides.

[Gazazyan] What kinds of insurance will Menua engage in?

[Sandoyan] Many kinds. These include insuring banking operations, the risk of unliquidated debts, and the risk of non-payment; advancing loans for innovations; dispatching of freight, transport shipments, and international exhibitions; various kinds of insurance for means of transport, passengers and drivers; various kinds of insurance for computers and software; insuring of tourists and athletes; and insuring the responsibility of the employer, and production stoppages.

In the future we will render our own clients services as well: offering guarantee of medical services, and guaranteed automobile service.

To the extent of the activation of foreign economic activities of enterprises and organizations, insuring the commercial rise of entering the international market will appear. The degree of this risk is growing, for example,

because of price instability, and poor knowledge of market relationships in the world market and the capabilities of foreign partners.

Establishing a market economy is simply unthinkable without new types and forms of insurance. Therefore we need not at all fear duplicating Gosstrakh. We will simply divide the insurance market and spheres of influence among ourselves.

[Gazazyan] All this is, of course, very tempting, such that one wants to take advantage of your services right away.

[Sandoyan] Right now preparations for beginning active operations are going full speed ahead. A fine team has been chosen, the process of methodological and technical preparation is in progress, and one day we will acquire the "know-how."

But we shall not rush to conclude agreements immediately. We want to be able to deliver the goods with precision and competence from the very first day. We are making our plans in consideration of international requirements; in other words, we are doing everything to ensure that our future clients will find our joint stock insurance company a reliable partner.

FUELS

UDC 622.276.5

Specialist Compares USSR, Foreign Oil Production*914E0010A Moscow NEFTYANOYE KHOZYAYSTVO in Russian No 10, Oct 90 pp 32-39*

[Article by V.N. Shchelkachev of MING under the rubric "Oil Production": "Analysis of Domestic Oil Production Compared to Foreign"]

[Text] *From the editors: Professor V.N. Shchelkachev, the author of this article, has headed a department at the Moscow Oil and Gas Institute imeni I.M. Gubkin [MING] for over 45 years, and enjoys broad fame as a researcher of theoretical and practical problems in the development of oilfields in the USSR, as well as the United States and other countries. He has devoted much of his work to a detailed study and analysis of the state of development of fields in the Chechen-Ingush, Bashkir, Tatar, West Siberian and other regions. In this article the author considers the contemporary state of the domestic petroleum industry. The editorial board of the journal invites specialists to express their opinions on the problems raised in the article.*

The petroleum industry is experiencing an exceptionally complex period in its development. What does the complexity of this period consist of, what are the causes that engendered it? What are the achievements and shortcomings in the development of domestic oil production? What is common, and what are the differences, in the state and paths of development of the domestic and foreign oil-producing sectors?

It is, of course, impossible to give an exhaustive answer to these questions within the framework of a single journal article. The author has posed himself the task of giving at least partial answers to them, based on a summarization of cumulative experience while adhering to the well-known saying *nullius in verba* ("nothing is based on words alone").

One must not forget, in analyzing the development of the domestic oil-producing sector, that oil has had to be provided for export, and not only for the diverse internal needs of the country. The country has received considerable hard-currency receipts—essential to provide for imports of foodstuffs, industrial goods, medicines, equipment and the like—from the export of oil and (to a lesser extent) petroleum products. Our country's economy was unfortunately structured on that basis, and moreover not only in recent years, but much earlier. More than ¼ of the total quantity of oil produced in the country was being exported annually (only partly after refining).

There are, of course, no grounds whatsoever for the statements published in papers and newspaper articles that the petroleum workers themselves had a vested

interest in the export of petroleum; this supposedly gave them special advantages. It is completely obvious that the oil workers themselves had no attitude toward the exports whatsoever; exports were not basically being developed to satisfy their needs at all. The oil workers were forced to provide the high levels of oil production that were established by the directive and planning bodies.

The authors of many articles and papers, knowing of the high rate of oil production in a country that has occupied first place in the world in the annual level of production of all liquid hydrocarbons—petroleum, condensate from petroleum gas and liquid by-products of natural gas—since 1975, have been incorrectly asserting once again that the petroleum workers are providing the high production rates at the expense of rapacious exploitation and development of oilfields without concern for the attainment of high oil-recovery factors.

The erroneous statements that have been published are harmful, in particular, in the fact that they foster the formation of incorrect public opinion, and that is especially dangerous in the development of glasnost. The factual data presented below entirely repudiate these erroneous statements.

The Soviet Union, while occupying first place in the world in the production of oil, also occupies first place in the average value of the planned (as supported by the state and development of the field-development process) ultimate oil-recovery ratio, equal to 0.41, as well as the level of current oil-recovery ratio attained. The average planned ultimate recovery ratio for all fields across the United States, according to data from U.S. specialists, is just 0.34. That is also the average recovery ratio for fields under development in Canada. They are also no higher for all of the richest fields of the Middle and Near East.

The oil-recovery ratio, after all, is the most visible indicator of the rational and efficient nature of oilfield development. It seems to non-specialists, of course, that one cannot be proud of such an average recovery ratio (an average of 59 percent of all the oil contained in the oil-bearing formations, after all, remains unrecovered therein). I repeat, however, that the average recovery ratio in the Soviet Union is the highest for that indicator compared to all other countries.

Development processes have been planned and are underway at many of the major fields of the country that allow for the realization of ultimate oil-recovery ratios that are significantly higher than 0.41. The ultimate oil-recovery ratio at the Tuymazy field, for example, where the process of stratal pressure maintenance was implemented for the first time in the USSR, is planned to be equal to 0.59, and the current ratio has already passed 0.54, while at the Bavlly field they are equal to 0.59 and 0.535 respectively. The planned ultimate recovery ratios planned at the Romashkino and Samotlor fields are equal to 0.57 and 0.56 respectively.

There are small old fields in Azneft and Grozneft whose development is now virtually concluded and where extremely high recovery ratios have been achieved. The average oil-recovery ratio for all 22 formations of the Karaganian-Chokrakian deposits in Oktyabrskiy Rayon of Grozneft is 0.721, and it is the highest for the XIII and XVI formations—0.730 and 0.837 respectively.

The highest average oil-recovery ratio is not achieved for nothing in our country. It is supported by basically the highest level of incorporation of advanced technology in the world—the maintenance of stratal pressure with the aid of various types of waterflooding (edge, marginal and peripheral etc.). More than 92 percent of all oil produced in the USSR is extracted at fields that are encompassed by waterflooding processes, as opposed to just 40 percent in the United States.

Enhanced oil-recovery [EOR] methods—thermal, physio-chemical, gas—are being adopted to raise the projected average recovery ratios. Our country still lags in this: the additional oil production through all varieties of EOR methods was 10.5 million tons, i.e., 1.7 percent of all oil produced, in the USSR in 1988, while it was 30 million tons, i.e., more than 7 percent of all oil produced, in the United States in 1987.

It must be noted, however, that hydrodynamic methods are being widely utilized in our country aside from EOR methods to raise oil recovery, and an additional 42 million tons of oil, i.e., almost 7 percent of all oil produced across the country, was produced in 1989.

The average annual rate of petroleum extraction as a percentage of the initial geological reserves (NGZ) in the Soviet Union is not only higher than for the United States overall, but even for Alaska, i.e., the state whose fields have the highest levels of petroleum recovery as a percentage of the NGZ in the United States.

The high annual rate of petroleum extraction of the NGZ in the Soviet Union, in spite of the incorrect statements cited above, has not led to the average recovery ratio proving to be lower than in other countries.

The most highly productive methods of mechanized oil production are being utilized in our country to provide for high rates of petroleum extraction. Some 58.1 percent of all oil produced in the USSR in 1989 was obtained with the help of UETsN [subsurface centrifugal pump units], and a total of 66.8 percent using UETsN and gas lift, i.e., $\frac{2}{3}$ of all oil produced (and almost 80 percent of all liquids produced). Neither the United States nor any other country in the world has nearly such high absolute and relative production of oil and liquids using the most highly productive mechanized exploitation methods.

The workers of the domestic oil-producing sector are thus providing the highest average oil-recovery ratios as a percentage of the NGZ, and the highest share of petroleum production using highly productive methods and mechanized exploitation, in order to achieve the

high levels of oil production planned by the directive bodies. The highest average oil-recovery ratio in the world is being provided therein.

A legitimate question arises, however: do we need, and should we permit, the maintenance of the high levels of oil production that have been attained to be preserved in the future as well? Before answering that question, we will consider the state of world oil production, as well as domestic.

It could be asserted that the period of energetic growth in oil production has, for objective reasons, come to an end once and for all both around the world and in our country. We will first confirm the justice of that assertion apropos of world oil production. Oil production has increased by 100 percent—i.e., has doubled—in round numbers every 10-year period from 1920 through 1970. World petroleum production grew from 95 to 192-195 million tons from 1920 to 1930, for example, or from 1.06 to 2.3 billion tons from 1960 to 1970. The growth rate of world oil production declined substantially in the 1970s. This was connected to a considerable extent with the slowdown in the rate of increase in petroleum reserves. Increases in world petroleum reserves have proven to be less than the quantity of oil produced over one and the same time period namely starting in 1970.

The maximum level of worldwide oil production was reached in 1979 and totaled 3.2-3.3 billion tons; it dropped to 2.8 billion tons in 1983 and then began to grow slowly again, barely reaching 3 billion tons in 1988. The forecasts of certain specialists, research organizations, power agencies and major banks come together on the fact that an annual level of worldwide oil production exceeding the maximum attained thus far by more than 10-15 percent cannot be expected, i.e., world oil production will not exceed 3.5-3.7 billion tons.

The maximum production level of oil and petroleum-gas condensate in the United States of 474 million tons (and, together with the liquid by-products of natural gas, 556 million tons) was achieved in 1970, while it totaled 384 million tons (according to preliminary estimates) in 1989, i.e., 81 percent of the maximum attained earlier. The level of petroleum production in the United States would be even 25 percent lower today had oil production not begun in Alaska in 1970. The level of oil production in Alaska in 1988 was almost comparable to the level of Texas, the largest oil-producing state in the United States.

A process of reduction in the level of petroleum production, however, began in 1989 (it was stable in 1980-88 at 80 million tons a year) at the largest oilfield in Alaska (and also the largest in the United States)—Prudhoe Bay. The oil-production rate at Alaskan fields will drop sharply in the future, causing a further fall in the levels of petroleum production in the United States.

Some 14 countries have been in the top 10 for oil-production levels one year or another over the last 20 years. We will list them arranged according to the

maximum petroleum-production level achieved in each country and indicating the years it was achieved: the USSR (1987-88); the United States (1970); Saudi Arabia (1980); Iran (1974); Venezuela (1970); Iraq (1979); Libya (1970); Mexico (1982); Kuwait (1972); China (1989); England (1985); Nigeria (1974); Canada (1973); and, Indonesia (1977). Only one of these 14 countries—China—had increasing production (exceeding the earlier maximum level) in 1989. It was fifth in the world in the level of oil production in 1989, comprising 4.5 percent of the world total. Production was half the maximum level attained for 5 of the 14 countries as early as 1988. The maximum level was reached some 10-20 years ago now for 10 of the countries.

Judging by the state of oil production, not one country aside from these 14 has the data to enter the top 10 in oil production in the next ten years.

The system of "prorationing"—limitations on the production levels of petroleum specially developed in the 1930s—was still in effect in the 1950s and 1960s in the United States. It was therefore justly felt in the 1950s and 1960s that the United States had great possibilities for increasing production even with the existing well stock. The situation has changed today. For example, the United States was forced to put several fields that had earlier effectively been shut down, being held in reserve for the navy, into operation in order to maintain oil-production levels (Elk Hills and Buena Vista, among others). Many fields in the United States have entered very late stages of development. If one were to take, by way of example, the 14 largest fields in the United States (13 of which were the top 13 in initial recoverable petroleum reserves in 1988 and 11 of which were the top 11 in annual oil production), more than 60 percent of the NIZ [initial recoverable reserves] had been extracted from 12 of them, more than 80 percent for 7 and more than 90 percent for 4 of them.

Another characteristic fact could be added to this: there were 277 oilfields in development in the United States in 1988 that are included in the class of especially large—the unrecovered reserves of oil at each of them exceeded roughly 13.5 million tons as of 1 Jan 89. The production of oil at those fields in 1988 totaled 60 percent of all annual U.S. production. The cumulative oil production since the start of development was 82 percent of their total initial recoverable petroleum reserves as of 1 Jan 89, according to data for all fields. The development stage of all of those fields is consequently on average quite late.

The average rate of water encroachment in the liquids being produced has exceeded 90 percent in the United States, i.e., some 12-13 tons of water have to be produced for each ton of petroleum.

The adoption of the latest EOR methods was begun in the United States in the 1950s. It was also stimulated by governmental bodies. The country's annual oil production was nonetheless being supplemented by only 7

percent through those methods some 30 years later, in 1987. The adoption of these methods, while restraining the rate of the drop in oil production, has consequently not yet been able to provide a turnaround toward increase in the United States.

Oil imports to the United States, especially intensive since the 1960s, have been stimulated not only by concern for preserving the intrinsic oil reserves in the country, but also by the rapid growth in consumption in the face of restricted opportunities for growth in oil production. The maximum oil imports of 416 million tons—comprising 45 percent of consumption of 934 million tons and 83 percent of the production of all liquid hydrocarbons in the country of 504 million tons—were reached in 1979.

The more than ten-fold rise in oil prices in international markets since 1974 has led to the fact that the foreign-trade balance of the United States has been negative for many of the last few years, principally due to expenses associated with oil imports.

The foreign-trade deficit of the United States (the excess of spending on imports of all goods, including petroleum and petroleum products, over monetary receipts from exports) totaled 127.6 billion dollars in 1989. All of the "independence programs" (U.S. independence from oil imports) that have been composed in succession by several U.S. presidents have not been fulfilled.

These difficulties in the oil production and economics of the United States impelled a move toward oil-consumption limitations and resource and energy conservation starting at the end of the 1970s. Great progress has been made in this realm. Consumption and oil imports were cut back to 786 and 248 million tons respectively by 1983, i.e., by 148 and 168 million tons compared to 1979. Much work was done to cut back gasoline consumption in transportation, heating insulation for buildings, energy conservation in the chemical and metallurgical industries and agriculture etc.

Oil imports and consumption began to grow again in the United States after the drop in oil prices in 1984, but the oil consumption of 852 million tons in 1989 (according to preliminary data) was 9 percent below the maximum consumption of 945 million tons in 1978. Imports of petroleum and petroleum products to the United States in 1989 totaled (according to preliminary data) 46.2 percent of consumption, 85.8 percent of the production of all liquid hydrocarbons and 103.3 percent of the production of oil and petroleum-gas condensate alone. Imports of petroleum and petroleum products in 1990 (415 million tons), according to forecasts, will reach 48.2 percent of expected consumption (861 million tons) of all liquid hydrocarbons across the country. It is especially characteristic that the consumption of petroleum in the United States was reduced not only in absolute amounts, but also to a far greater extent per unit of gross national product. The consumption of oil was reduced by 9 percent, while its consumption per unit of gross

national product in the United States decreased by 31 percent, over those same 11 years (from 1978 through 1989); the consumption of all types of power increased by 4 percent, but dropped by 21 percent per unit of gross national product.

The consumption of oil has been reduced in almost all the industrially developed countries based on the implementation of significant power and resource conservation.

The consumption of petroleum products, for example, was reduced by 29 percent in Sweden from 1980 to 1985, as well as by 22-24 percent in France, Holland, Norway and Belgium, by 19 percent in Japan, by 12 percent in Italy and by 9.5 percent in West Germany.

The consumption of petroleum products increased rather than decreased in the developing countries of the Middle East and Africa over the same period.

The sharp rise in world prices for oil, as has been indicated, began in 1974 and reached its height in 1981. It could be immediately asserted that it was a short-term process, based on the subsequent decline in oil prices starting in 1981. A new process of price rises for oil has in reality been noted since 1988 (the competitive-market price reductions of 1990 are probably short-term). Price growth will continue over the course of the whole next decade as well. The state and dynamic of changes in world petroleum reserves and the more complicated and expensive nature of oil exploration, field development

and production are convincing of that. The spending on performing those three processes grew from 6.7 to 69 billion dollars from 1969 to 1982 in the United States. This is only partly a reflection of the effects of inflation.

These data have thus wholly confirmed that one cannot expect any energetic growth in worldwide oil production; this pertains to an even greater extent to oil production in the United States. It is also obvious that the period of cheap oil has ended once and for all. The exploration and development of oilfields and production technology will become more complex and expensive, basically as a consequence of more complex natural conditions and increasing depths and the adoption of EOR methods at new fields, and through the development of the process of encroachment of the liquids being produced, the adoption of EOR methods, the aging of equipment, decreasing well oil yields etc. at old ones.

Many of the reasons that are making world oil production, including the oil production and economics of the United States, more difficult are also complicating the development of domestic oil production.

In reality, while the maximum levels of oil production have already passed for 13 of the 14 largest oil-producing countries of the world, as well as the largest oilfields of the United States, analogous data could be cited for our country as well. We will recall the data on changes in oil production in the USSR from the 8th to the 12th Five-Year Plans (Table 1) and selectively for West Siberia since 1970 (Table 2).

Table 1

Five-year plan	Years	Oil production in first and last years of five-year plan, millions of tons	Increase in annual oil production levels over five-year plan, millions of tons
8th	1966-70	265.353	88
9th	1971-75	377.491	114
10th	1976-80	520.603	83
11th	1981-85	609.595	-14
12th	1986-89	615.607	-8

Note—The last line presents data only for the fourth year of the 12th Five-Year Plan, as it has not yet concluded.

Table 2

Years	Oil production, millions of tons	Increase in oil production relative to prior year:	
		absolute, millions of tons	relative, percent
1970	31	10	47 (maximum)
1978	254	37 (maximum)	17
1980	313	29	10
1985	366	-12	-3.2
1988	409 (maximum)	4.6	1.1
1989	398	-11	-2.8

Note—Oil production for West Siberia in 1988 and 1989 was 65.5 and 65.6 percent respectively of oil production in the USSR (624 and 607 million tons), i.e., $\frac{2}{3}$ in round numbers.

Periods of slow growth in oil production in the USSR have begun to alternate with periods of virtual stabilization, and even decline, since the 1980s. The maximum oil production of 624 million tons was reached in 1987-88, as it was in West Siberia in 1988 at 409 million tons. It may be asserted on the basis of Tables 1 and 2 that the energetic development of oil production has come to an end in the USSR and in its major oil-producing region. This is further confirmed by other data cited below.

The oil-production levels have passed their maximums not only at some of the production associations of West Siberia (including the largest of them, Nizhnevartovskneftegaz, Yuganskneftegaz and Surgutneftegaz), but also in the majority of the associations in older regions as well. All of the Caucasus associations (Azneft, Grozneft, Krasnodarneft, Stavropolneft, Dagneft, Gruzneft) and Belorusneft, for example, have lost more than 70 percent of the maximum oil-production levels they had attained earlier. Losses of 50-70 percent in relation to the maximum levels have occurred in the largest production associations of the Urals-Volga region—Tatneft, Bashneft and Kuybyshevneft—as well as in Turkmenneft, Ukrneft, Nizhnevolzhskneft and Embaneft, among others.

The rate of water encroachment in the liquids produced is rising. The average encroachment rate across the USSR was 50 percent in 1976, while it exceeded 76 percent in 1989, i.e., one ton of water was extracted for each ton of oil in 1976 for the first time in the USSR, while in 1989 they had to extract over 3 tons of water for each ton of oil.

The average rate of water encroachment reached almost 72 percent in 1989 for Glavtyumenneftegaz, 85 percent for Tatneft and exceeded 91 percent for Bashneft, i.e., they were extracting 5.5 and 10.5 tons of water per ton of oil in Tatneft and Bashneft respectively.

Even though the largest field in West Siberia—Samotlor—had begun to be developed considerably later than the largest of the Urals-Volga region—Romashkino—and the initial reserves of oil in it were depleted in considerably less time, by the end of 1989 the rate of water encroachment in liquid products for Samotlor (85.4 percent) was almost equal to the encroachment rate for the Romashkino field (87 percent) nonetheless, while the oil-water ratio for Samotlor (125 percent) even exceeded the oil-water factor for the Romashkino field somewhat (123 percent). This example confirms the conclusion drawn earlier¹: the process of encroachment is developing faster and more intensively in the fields of West Siberia than the average for the fields of the Urals-Volga region.

The aging of many of the major domestic oilfields and the attendant growth in the rate of encroachment of liquids produced, the decreasing well yields for oil, the increasing share of oil produced using mechanized methods and other factors are making the processes of development and the technology of oil production much more complex and expensive.

The share of oil being produced in the USSR using natural-flow methods was 23 percent in 1940, and had increased to a record value of 74 percent in 1961. This growth was caused not only by the bringing of new productive fields into development, but also by the widespread and intensive incorporation of pressure maintenance. This increase in the share of flow production was a great achievement. By 1989 the share of flow production had decreased to 14.2 percent. This reduction, partially caused by the aging of the fields under development, occurred against an overall background of a rise in oil production and liquids production from 1961 to 1989. This process should also be considered an achievement: it was more advantageous, with the appearance and development of the corresponding technology, to convert a water-encroached natural-flow well with reduced oil yields to exploitation with a much higher yield using UETsN or gas-lift methods.

These facts prove the clear error of the assertions published in newspaper and journal articles and papers that the continuous growth in capital investments in the petroleum industry is explained only by the mismanagement of the petroleum workers. One can, of course, point out specific individual instances of mismanagement, but not generalize that onto the whole development process of the oil-producing sector.

Another extremely material circumstance should be emphasized. It is important to note not only the fact that the USSR was in first place in the world in annual production levels of all liquid hydrocarbons in 1975, wherein the USSR share of their production had increased from 7.4 percent in 1950 (the share of the United States that year was 52.2 percent) to 17.8 percent in 1979—the year of maximum world oil production (U.S. share had declined to 14.6 percent that year) and to 19.6 percent, according to preliminary data on world oil production, in 1989 (the U.S. share of production was 12.4 percent that year). The steady growth in the share of the USSR occurred when worldwide oil production was supplemented through the inclusion of the rapidly developing regions of the Middle East and Africa. Oil production in the USSR grew faster than it did around the world, both through the incorporation of advanced development technology using pressure maintenance, but also, of course, through the discovery of new oil-bearing regions in the country by geologists. Enormous credit is due the geologists and geophysicists in this.

The rapidly growing oil production in the Urals-Volga region, and then in the Ukraine, Turkmenia, Belorussia and, finally, West Siberia, were added to oil production—i.e., the geography of oil production in the USSR was fundamentally altered—even before the end of the war.

The share of oil production in the regions of the Caucasus (Azerbaijan, Chechen-Ingush, Krasnodar Kray, Dagestan) totaled 86.1 percent of all USSR production in 1940, but had dropped to 3.3 percent by 1989.

The total oil production in the three largest Urals-Volga regions—Tataria, Bashkiria and Kuybyshev Oblast—totaled 64-65 percent in 1960-64, i.e., almost $\frac{2}{3}$ of all production in the USSR, but had dropped to 13.4 percent in 1989.

The share of oil production in West Siberia, as has already been indicated, totaled $\frac{2}{3}$ of nationwide production by the end of the 1980s, even though it had only started there at the end of the 1960s.

It is obvious that such a rapid and substantial restructuring of the geography of oil production demanded enormous labor by the oil-worker collective, allowing for the necessity of assimilating and building the field infrastructure of many new regions under difficult natural and climatic conditions. All of this in turn required large capital investments. It should be noted that over all of the postwar years the United States has had to organize new production only in Alaska, and moreover its share of oil production in the United States did not exceed 25 percent in 1987-88.

Some authors have nonetheless directed attention only toward the growth in capital investments, while ignoring the reasons that caused them.

The requirements for a rapid augmentation of oil-production volumes, moreover not supported by the corresponding material and technical supply, have forced the petroleum-industry workers to resort to simplistic solutions, "temporaries" in field infrastructure development and lags in the development of the whole oil-production infrastructure, especially in the development of the social and domestic sector. A similar situation has unfortunately been common to many sectors of the national economy.

There were, of course, many large and small underestimations and errors in drilling, development, the technology of oil production, economics and, especially, questions of ecology along with the achievements in the development of the oil-producing sector. I will cite just a few examples.

Errors in many of the development projects were connected with the incorrect forecasting of the most complex and prolonged period of water operations and the incorrect selection of the required number and placement of wells. The clearly stop-gap solutions inherent in the development plans for major fields required subsequent corrections that required the expenditure of large additional material and technical resources that were not envisaged in the plans and were exceedingly harmful in the running of a planned economy. The erroneous nature of many development plans was partially connected with the clear monopolization of petroleum science from the middle of the 1950s to the beginning of the 1980s. These disruptions have been eliminated to a considerable extent today.

I feel it my duty to note that domestic petroleum science has recently suffered a grave loss—honored oilman and

Lenin Prize laureate Aleksandr Ivanovich Gubanov, who had worked at Giprovtokneft for over 40 years, passed away at the end of 1989. A.I. Gubanov composed the plans for the development of the Bavlly Oilfield, all of the fields of Samarskaya Luka and many others in Kuybyshev Oblast. The pattern densities and placements of wells chosen always proved to be close to the optimal in the development plans composed by A.I. Gubanov; the plans forecast quite accurately the levels of oil production and the stratal pressures, i.e., the plans of A.I. Gubanov, as opposed to many others, did not need substantial refinements or alterations even in the latter stages of development.

There was and remained a clear lag in the physiochemistry, the physics and chemistry of formations, compared to subsurface hydrodynamics.

The development of oil-production development and technology was and is slowed all the time by the backwardness of domestic machine building. It must be taken into account that the defects in machine building are also hindering a rise in oil recovery. The lack of sufficient quantities and the essential assortment of reliable and highly productive ETsN [electrical centrifugal pumps] and the backwardness in the development of gas-lift exploitation technology really have limited the opportunities for the profitable accelerated exploitation of heavily water-encroached wells. The lack of reliable equipment for the automation of exploitation processes and the insufficient degree of reliability of their equipping with sucker-rod pumps have limited opportunities for the profitable intermittent operation of low-yield wells.

Roughly 450,000 wells in the United States—i.e., approximately $\frac{3}{4}$ of the total operating well stock—is in the low-yield category, with a maximum yield of 1.3 tons/day and an average of 0.5 tons/day. The average well yield in some states—New York, West Virginia, Pennsylvania—is 80 kg/day. Their operation (intermittent with automation and reliable equipment) is profitable for private owners, which is confirmed by the annual drilling of a multitude of such wells in those and other states.

Many of the imperfections in the development of oil production are associated with incorrect price formation and the one-sided and clearly non-objective assessments of the labor productivity of the oilmen. It is obvious that a prolonged and complex period of aging of the development site must follow the rise in the rates and volumes of oil production at every oilfield. It becomes inadequate to judge the labor of the oil workers only according to the quantity of oil produced per worker from that moment on.

Returning to the facts and causes that have been enumerated that have provided for rapid growth in domestic oil production, the restructuring of its geography and the development of advanced technology, it can be asserted

that no period of stagnation preceding the 1980s had existed in this realm of the petroleum industry.

We can and must speak of stagnation only apropos of the social sphere connected with the oil-producing sector.

The analysis of the development of oil production around the world, the United States and our country that has been performed in this article is convincing that many analogous difficulties arose on the way connected with the aging of the fields under development. The United States and other countries began the timely restructuring of the whole economy on the basis of resource and energy conservation in order to lessen or surmount these difficulties. A reduction in oil consumption was pursued in those countries, as has already been mentioned, per unit of gross national product as well as in absolute terms. This transformation of the economy has not been carried out as efficiently in the USSR. The consumption of petroleum and petroleum products per unit of gross national product in the Soviet Union is higher than in many other developed countries. This pertains to the metallurgical, chemical and other sectors of industry as well. The generation of light products from petroleum is lower in the USSR, and the consumption of petroleum products by motor vehicles and aircraft is considerably less productive. The wager has thus always been placed on growth in oil-production levels in the overall development of industry in the USSR, rather than on the implementation of measures fostering reductions in oil consumption.

The task of resource and energy conservation and reductions in oil consumption is one of the main strategic ones in the development and restructuring of the economy in our country.

Major shifts in the resolution of that strategic task, however, cannot be expected sooner than in several years. It should thus be taken into account that the resolution of the most topical production problems and the provision of the population with industrial goods will be connected once again with the necessity of exporting considerable volumes of petroleum. The oil workers will thus have to resolve a tactical task in the next few years—the maintenance of oil-production levels or the maximum possible reduction in the rate they fall. The appropriate measures will consequently have to be performed at old fields, aside from the inclusion of new fields into development at an intensive pace—strengthening hydro-dynamic methods of stimulating formations, accelerating the extraction of liquids, drilling additional wells etc. Such measures could prove to be entirely profitable providing there are improvements in price formation. The oil workers, however, should have a vested economic interest in their implementation, putting a significant portion of the additional oil produced at the complete disposal of the production enterprises. The oil workers themselves will also be able to procure the necessary equipment themselves through the sale of that oil and resolve the long-overdue tasks of improving cultural and domestic conditions.

It is particularly necessary to speak of the adoption of the latest EOR methods in places where they are effective. It should be taken into account that the adoption of EOR methods will not be able to assist appreciably in resolving the tactical task formulated above of maintaining oil-production levels across the country in the next few years. It must be remembered, however, that all of the subsequent development of the oil-producing sector will be linked with the incorporation of EOR methods.

Footnote

1. Shchelkachev V.N. Forecasting Growth in the Water Produced with Oil Based on Comparative Analysis, NEFTYANOYE KHOZYAYSTVO, 1989, No. 7, pp 33-36.

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Turkmen Oil Chief on Sector Operations, Performance

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[Interview with Kh. O. Ishanov, general director of the "Turkmenneft" Association and member of the USSR Supreme Soviet, by A. Yezerskiy: "In Carrying Out the Social Order of the Time"]

[Text] A year ago, Khekim Orazovich Ishanov, the chief engineer of the "Turkmenneft" Association, was elected as a USSR people's deputy, and then general director of the association as well. There is no question that he knows his job well. But isn't he hampered by the combination of a deputy's responsibilities with the many-sided concerns of the "general" of the republic's oil sector? After all, it is no secret that as a member of the USSR Supreme Soviet he has to spend a great deal of time taking part in the work of the country's parliament sessions. But what about the voters' mandate and the plans set forth in the pre-election program? Is he succeeding in putting them into effect?

We began our discussion with Kh O. Ishanov with these questions, which are troubling many voters.

[Ishanov] My pre-election program combined several directions. One of them was aimed at normalization of the economy. Without going into details, I will say that implementation of a combination of measures to stabilize oil and gas extraction and increase labor productivity made it possible for the association as a whole to fulfill the 1989 plan for profit by 140.4 percent. About 14 million rubles in above-plan profit was obtained from the sale of output. Oil workers are working steadily this year as well.

Last year's strengthened financial position enabled us not only to increase the deductions for our labor collective's economic incentive and social development funds, but to provide assistance in resolving the city's social and

economic problems. This year we transferred 40,000 rubles into the charity and health fund. By a decision of the STK [labor collective council], 214,000 rubles were transferred to the association's funds to form and maintain a soccer team in the second league. About 60,000 rubles were allocated to establish an oncology center in Nebit-Dag, which will function with shared contributions from enterprises in the oil region. We have supported the wish of Nebit-Dag residents to build a mosque in our city. Some 100,000 rubles from the "Turkmenneft" Association have been allocated for these purposes. Oil workers have responded to the appeal to take part in a television marathon to provide assistance for the victims of the Chernobyl disaster. We have set aside 100,000 rubles to help the oil workers in Belorussia.

Our successful completion of the 1989 program enabled us to do this. We have not forgotten about the socioeconomic development of enterprises and organizations in the "Turkmenneft" Association either, of course.

Another important direction in my pre-election program was improvement in the provision of housing for oil workers and residents of the city as a whole. Even then I emphasized that without drastic improvement in the work of the local house-building combine, it is impossible to resolve this problem. For this reason, after study of our financial capabilities and the reserves of the DSK [house-building combine], the association's labor collective council decided to allocate 600,000 rubles for shared participation in renovation of the house-building combine. Moreover, it turned out that the combine needed metalwork—equipment—in order to begin the renovation. No one could help in obtaining it. The association had to assume the burden of manufacturing this equipment, and metalwork valued at 230,000 rubles will be manufactured by our production maintenance base.

In addition, the association built 2,300 square meters of housing in 1989 using its own resources. But this was not enough. In order to speed up housing construction using our own resources, it was decided to set up a specialized construction and installation administration under the association with its own base. This was planned because an appeal to everyone to take part in building housing was not justified. It led only to disintegration of forces, funds and materials and resulted in a large number of lengthy construction projects. For this reason, we decided to unite the efforts of individual enterprises in one cost accounting construction and installation administration which will build housing and social and cultural facilities for the oil workers on a contract basis. This was an efficient solution, since there is a critical shortage of construction materials throughout the country and we must make use of them, as well as the skill of experienced specialists, wisely. Each person should work at his job, and professionally.

I am convinced that the specialized construction and installation administration will be of considerably

greater benefit than numerous subunits of unskilled self-taught construction workers who undertake a job they know little about.

[Yezerkiy] Where will the house building using your own resources be begun first?

[Ishanov] We will start building the oil workers' settlement at the beginning of 1991. It will be located on territory between the petroleum tekhnikum and the new microrayon. The project calls for the construction of four two-story and four four-story buildings.

[Yezerkiy] But where will you get the building materials? After all, isn't there a critical shortage of them?

[Ishanov] We thought about this for a long time and decided that our association should have its own quarry to turn out building materials. We made arrangements through the Ministry of the Petroleum and Gas Industry and the republic's Council of Ministers for them to provide a sector to quarry stone [kamen-gyush] in Krasnovodsk. In order to begin its development, we managed to "shake out" four stone-cutting machines, thanks to the ministry. The first one will arrive in 1991.

In addition, we will be turning out brick from local clays in the Dzhebel region. The first section of the brick shop should turn out three million pieces annually, but brick production will be increased to six million when the second section is put into operation.

But what about the cement, you will ask. After all, there is not enough of this in the entire country. We have studied the problem and together with efficiency experts from the TurkmenNIPIneft [Turkmen Scientific Research and Planning Institute of the Petroleum Industry] we found a reliable reserve for economizing cement. The innovators suggested that we change the cement technology for boreholes after drilling, making partial use of sand instead of the scarce cement. And the reliability of borehole wall reinforcement will only be increased by this. While they previously added sand to the cement manually, the preparation of sand-cement mixtures is now mechanized. We will use the cement economized in this way to build housing and to sell to the public.

We also have been able to resolve one more problem—the delivery of timber. Where do we get it? It is not grown in Turkmenia. There was one solution—establish contact with logging rayons through an intermediary. It was one of the cooperatives in the republic's Gosnab. Under the contract, we will finance this cooperative for 20 years, increasing the volume of timber procurement from 280,000 to two million rubles annually. This will help us to provide for a reliable raw material base in the future to build housing and social and cultural facilities.

[Yezerkiy] The problem of supplying the public with food is no less critical now. How do you plan to resolve this?

[Ishanov] First of all, we have increased the number of sheep, cows and pigs on our subsidiary farm. We established one more subsidiary farm on the base of the "Chelekenmorneft" NGDU [Oil and Gas Extraction Administration]. There are now about 50 cows, 400 sheep, and 100 pigs there. I can also report that a contract has been concluded with a scientific research institute, which is working out a plan for us to have an industrial fishery in Lake Yaskhan. We have gotten to the point that we see lines for frozen fish, not to mention fresh fish, you know.

In addition, we are completing construction this year on a hothouse where fresh vegetables and greens will be grown for the city's nursery schools. Everything is already prepared there. The only thing holding it up is the glass. We need 12,000 square meters of it, but the "Turkmenneftstroy" Trust does not have this much. And for this reason, they propose that work on the project be stopped. We had to look for the glass through an intermediary. It turned out to be one of the Ashkhabad cooperatives. True, it is asking more for the glass, but we decided to incur the additional expenses for the sake of the children.

There is one more idea—to establish one more "shop" on the base of some sovkhoz or kolkhoz to turn out foodstuffs. At the same time, to provide the rural residents with reliable socioeconomic development: to build roads, nursery schools, a school, a medical center, and a club, and to provide gas for homes and a supply of water and power so that they make use of advanced technology and are guided by experience and knowledge in producing foodstuffs for the oil workers.

I have told you briefly how the problems of building housing and providing food for the public are being resolved. But this is far from everything. We are thinking about building a workers settlement near the old airport for employees of the association to accommodate 2,000 or 3,000 families. This is a suitable place both for building housing and raising agricultural produce on personal plots. The vegetables and fruits grown will not only be a substantial addition on the tables of large families, but the excess produce will supplement the shops in the city market.

We propose to build housing in the settlement with our own resources, as well as to help those individuals who are building their own. We are prepared to take part on a shared basis in building schools, stores, nursery schools, and hospitals and organize the funds for the settlement's gasification and water and power supply.

[Yezerkiy] But when do you plan to begin construction of this settlement?

[Ishanov] Unfortunately, the time depends not on us, but on the city ispolkom, which needs to speed up the coordination related to construction of the settlement in the Council of Ministers and other republican departments.

[Yezerkiy] Khekim Orazovich, in your pre-election program you promised to help gardening enthusiasts in providing their plots with water for irrigation. How is this matter being resolved?

[Ishanov] Construction of the main water line from the Dzhebel pumping station to the garden plots situated near the "Orbita" station has already been completed. Water will be provided this year to roughly 700 families, and the lines are being laid to the remainder. But altogether, over 3,000 plots have been set aside for the residents of Nebit-Dag.

[Yezerkiy] A separate point in your program was a solution to the problem of supplying gas for settlements in the oil region. What has been done in this regard?

[Ishanov] Construction of the main gas pipeline from Dzhebel to Oglanly, more than 40 kilometers long, has been completed. Planning estimates for gasification of the settlement of Oglanly are being prepared in the TurkmenNIPIneft Institute. But we lack 200,000 rubles for financing of the construction and installation work. The Ministry of Machine Tool Building, which is in charge of the Oglanly Bentonite Mine, cannot allocate funds for this. It has suggested that we bear at least half of the expenses on a shared basis.

I will attempt to convince the comrades of this at a session of the labor collective council. And this is why. The bentonite clays of Oglanly are considered to be the best quality in the world. But they are not being utilized wisely here. They are being extracted from the pit in small quantities and shipped to consumers in the machine tool manufacturing, metallurgical, and other sectors in raw, lumpy form. Many customers are purchasing this clay reluctantly, since it must be put into proper condition, cleaned, dried, and ground into powder on their equipment, which is not adaptable. That is, our mine, by selling bentonite at a bargain, is creating additional problems for its customers. But instead of this, why not organize the extraction and processing of bentonite clays into powder in Oglanly to meet requirements of the world standard? And package it in neat, convenient bags and sell it as a finished product at realistic prices. This will sharply increase the profitability and prestige of the enterprise. It will have more customers who want to obtain high-grade bentonite powder.

For this reason, today we would like not only to complete gasification of the settlement, but to establish contacts for a joint venture to turn out bentonite powder. The cost of a processing shop or plant, according to preliminary estimates, will be about 3 million rubles. The mine has no such money, but we can help it in this mutually beneficial effort. We have coordinated this matter first with our Ministry of the Petroleum and Gas Industry.

[Yezerkiy] But what about gasification of the other workers settlements in western Turkmenia? Many of

them are situated near the underground supplies of blue fuel, but they don't have the opportunity to make use of it.

[Ishanov] We speeded up work recently on gasification of the settlement of Kara-Tepe because the association provided the pipes for this. At the same time, we are engaged in providing gas for the settlement of Kamyshldzha. Two specialized mobile brigades are working here now. We plan to complete gasification of these settlements by the middle of next year. I would like it to be a little sooner of course, but we have to perform a great deal of labor-intensive work to arrange the gas lines inside houses.

In addition, the republic government has charged us with gasification of the entire western region as a whole. This means the Krasnovodskiy, Gasan-Kuliyskiy, and Kyzyl-Atrekskiy Rayons. Construction of a gas pipeline is planned this year from Prichal to Gasan-Kuli, over 80 kilometers long. About 40 kilometers of pipe have already been received, and we are proceeding to lay it. Later on we will continue construction of the gas pipeline from Gasan-Kuli to Kyzyl-Atrek, Madau, and Bugdayli. This will form a distinctive ring of over 250 kilometers. It is planned to complete this large amount of work in the 13th Five-Year Plan.

In addition, we want to speed up gasification of the settlement of Gogran-Dag through the association's efforts. The planning assignment has been given to the TurkmenNIPIneft Institute.

[Yezerkiy] How is the employment problem being resolved for the people of Nebit-Dag?

[Ishanov] I have already stated that the problems of employment, as well as the provision of food and housing, need to be resolved together. But for this we must actively involve the able-bodied public in the work of construction and installation and agricultural cooperatives. The recently adopted decree by the President of the USSR "On new approaches to a solution of the housing problem in the country and steps for its practical realization" is a reliable reserve in carrying out plans to build housing and social and cultural facilities by individual and cooperative means and through our own resources.

We will be able to smooth out the employment problem in part by putting the brick plant and the shop to process stone in Krasnovodskiy Rayon into operation and by enlisting fresh forces to turn out consumer goods and develop enterprises in the services field, which I mentioned previously.

In accordance with the socioeconomic development plan for the city, it is planned to begin construction in 1991 of the Nebit-Dag Textile Mill, which will employ about 2,000 persons. In addition, construction of three more production facilities is planned in the next five-year plan: an industrial rubber plant and factories to manufacture accessories and furniture.

[Yezerkiy] But how many are unemployed in Nebit-Dag today?

[Ishanov] About 3,000 persons. They can all be placed if matters are organized well. But there is information that by the end of the 13th Five-Year Plan we will need to provide work for twice as many. So we must resolve this problem today, taking forecasts for the future into account.

For this reason, we need to put new enterprises to process raw material into operation as quickly as possible. This is one of the methods of resolving our social and economic problems: reinforcement of the local budget, employment for the people, and the solution of food, housing, and other programs.

Under the new conditions of economic operations, we cannot rely upon someone to resolve these problems for us or to provide assistance without compensation. For this reason, we should look for efficient ways to strengthen our economy ourselves. For example, I welcome the decision to develop the fertile lands in southwestern Turkmenia, in Kyzyl-Atrekskiy Rayon and the Meshkhed-Missarianskiy Tract. But we need a project to bring water to the Madau Basin for this. It will cost 400 million rubles to realize this. The republic has no funds at present to finance this project. For this reason, as general director of the association and a resident of the region, I want to persuade my ministry to take part in carrying out this project on a shared basis by assuming 50 percent of the expenses.

We are convinced that it is no less important to turn the eastern shore of the Caspian into a well-organized, up-to-date rest area for the entire country. To build comfortable holiday hotels here, possibly with the help of foreign firms. I am convinced that there will be quite a few people who want to relax in the ecologically clean area of the Caspian coast. In addition to beautiful beaches and the therapeutic sea air, we can offer the unique therapeutic mud baths of the noted Molla-Kara health resort and the curative springs of Kara-Chagyl which are located near the sea.

[Yezerkiy] Khelim Orazovich, it is common knowledge that you were elected in the country's Supreme Soviet to the Committee on Ecology and Efficient Use of Natural Resources. The problems that you are concerned with, in their range and timeliness, now rank with the struggle for peace. It is no secret that now, in the century of technical progress, if we do not maintain the balance in nature and protect the environment, entire regions can be destroyed without a shot, so to speak, in peacetime. This is what happened with the Aral Sea, Kara-Bogazgol, and other "hot spots." I would like to know how the problems of environmental protection are being resolved in our region.

[Ishanov] If you compare our region with others, our ecological situation is more favorable. The fact that harmful enterprises are quite remote from settlements, taking the prevailing winds into account, contributes to

this. I am referring to the Cheleken Carbon Black Plant and other enterprises. There are quite a few problems, all the same. The Cheleken plant, which was subsequently renamed as an industrial carbon plant, is polluting the atmosphere so badly that it is simply intolerable. Finally, after many discussions, the decision was made to close this facility. And the Cheleken gas which was coming to the plant as raw material will be fed to the compressor station in Koturdepe and then into the "Central Asia - Center" mainline. But the plant will be reequipped to turn out consumer goods—rubber and athletic footwear.

[Yezerskiy] Khekim Orazovich, many residents of our region are worried that oil will be extracted from the Caspian shelf. After all, the "TurkmenNeft" Association is now surveying underground deposits there. Won't development of the deposits affect the cleanliness of the sea on the eastern shores of the Caspian?

[Ishanov] There are sizable oil reserves on the Caspian shelf, of course. But I am convinced that it is not worth rushing to extract it. We cannot begin development of the sea deposits without a reliable, ecologically clean technology for operating the wells. We can continue exploration of the formations and determine the reserves more precisely. But we must be very careful in conducting operations.

It is expected that about 300,000 tons of oil can be extracted on the eastern shore. This is a sizable addition to the overall flow of Turkmen oil which is being sent for refining, of course. But the alarming situation which developed in connection with the accident on the wells at sea once again confirms our apprehensions about the unreliability of the equipment for sea wells. In order to rule out new complications, we simply must discontinue operations here until reliable equipment is obtained.

I may be asked how we will compensate for the oil that is not extracted from under the seabed. I will reply. By improving the technology for developing the deposits on dry land and by more extensive, large-scale introduction of the scientific recommendations of the TurkmenNIPIneft and other sectorial institutions. We have to step up work to extract oil reserves from the deep strata of Koturdepe, Barsa-Gelmes, and other deposits which are still waiting for their turn because of the difficult operation of the deep wells. At the same time, we need to step up the search for oil in the so-called complex of deposits which the geologists associate with the main prospects for increased reserves of hydrocarbon raw material in southwestern Turkmenia.

We have one more encouraging reserve for increasing the oil yield of strata. And it appeared recently owing to the successful penetration of a well with a horizontal shaft which passed through the producing formation of one of the sectors of the Koturdepe deposits. Several times as much oil is withdrawn from a horizontal well as from a vertical well. Taking this into account, we will be planning the development of deposits with the help of similar

inclined-horizontal wells. They will be drilled by experienced experts from the Koturdepe UBR [Drilling Administration], using telemetry systems and other electric drilling technology. In addition, inclined-directional and horizontal wells will help us in developing the small formations left "in reserve" in the deposits already in use. With the help of a "television camera," an electric drill can penetrate to these formations, whose development was prevented before by the numerous systems and pipelines. We will be drilling wells such as this in the old deposits of Nebit-Dag (Vyshka) and Kum-Dag, as well as in Koturdepe and Barsa-Gelmes. At Kum-Dag, we will be injecting micellar solutions to increase the oil yield of the strata at the same time.

I want to point out that we are increasing the oil yield of strata together with measures to protect the environment. Many people will recall that previously there were a large number of small lakes covered with a black film in the old oilfields. They appeared because the stratum water extracted from wells along with the oil was discarded in the sands and takyrs soils after preliminary cleaning. This water is now being treated by following the recommendations of TurkmenNIPIneft scientists, and it is reused for injection into producing horizons. This has not only made it possible to reduce expenses to transport sea water for the same purpose; it has eliminated the lakes with an oil film from the fields.

Generally speaking, a thrifty approach to the work always promises quite a few advantages. One more example from our experience. We have concluded a contract with the Cheleken Iodine Plant, which will undertake intensive processing of the unused stratum waters to extract valuable chemicals from them. And it is not necessary to drill additional wells. It is enough just to lay rustproof piping to pump the water to the plant. The chemists at the Nebit-Dag Iodobromite Plant have supported our idea has well.

Or let us remember the notorious "candles" which burned in the oilfields when the petroleum gas was not utilized because of the low pressure, but problems were not far away. Now we hardly see any gas flares. With the help of booster compressor stations, the gas from marginal wells is utilized for gas lift extraction and part of it is sent into the "Central Asia - Center" mainline.

In recent years, our association has managed to increase the utilization of petroleum gas and casing-head gas up to 98 percent. This is one of the best indicators in the sector. However, this indicator has declined at present, since the use coefficient of casing-head and petroleum gas has fallen off in the oilfields of the Gogran-Dag - Okarem region. This happened because compressor stations were not built in a timely manner here to pump the gas into the "Central Asia - Center" mainline. Steps have now been taken to speed up the construction of booster compressor stations in Okarem and Kuydzhih.

[Yezerkiy] Khekim Orazovich, how is the voters' mandate being carried out with respect to improvement of the water supply for residents in the republic's southwestern rayons?

[Ishanov] Taking into account that the workers settlements, beginning with Gogran-Dag and ending with Prichal, are using mainly the water brought in from Baku, and this is expensive and unreliable, we must organize our own water supply in this region. Thanks to the initiative of the "Turkmenneft" Association, the plan for a water pipeline from Nebit-Dag to Kum-Dag to Gogran-Dag to Prichal has now been completed. It is planned to build this project at the association's expense next year.

[Yezerkiy] Many voters are concerned because you are spending most of your time in Moscow and Ashkhabad at sessions and conferences. But how are you organizing your work with the electorate?

[Ishanov] I must admit that little time is left for meetings with my constituents. Although I always seek to have them. In the intervals between Supreme Soviet sessions I met with residents of Oglanly and Kum-Dag and employees of enterprises in the city. I admit that this is not enough, but work in the Supreme Soviet does not allow the opportunity to have meetings more often at present. But I always keep the voters' mandates within my field of vision and try to carry them out as quickly as possible. I have tried to tell you about this in detail. My constituents should realize that many problems are large-scale in nature, associated with the construction and financing of major facilities, and it is not simple to resolve them for that reason.

But when I visit Nebit-Dag I hold a reception four times a month, although in my status as deputy I should hold one once per month. I had hoped that after elections to the local soviets the newly elected deputies would assume part of the workload and concern themselves in earnest with the activities and concerns of workers in the city and the settlements. But alas, this did not happen. Each time 30 to 50 people come to meet with me. As a result, more than 200 requests have been received from 32 labor collectives in the past six months. Most of them have been reviewed, and 18 remain to be checked.

But this is what I would like to say. And people should understand me correctly. Most visitors come to me with problems which, if the correct procedure were followed, could be resolved without red tape at the city or republic level. But people prefer to appeal right away to a deputy of the country's Supreme Soviet. Whether I like it or not, I must refer these requests from the top down. And as a rule, they make a fair decision there. It is another matter if steps are not taken on their complaints and there are cases of callousness and bureaucratism. For this reason, I have an earnest request to make of my constituents: take your requests to a specific official. Your personal work and our common work can only gain.

[Yezerkiy] But won't it appear to some people that you are avoiding the protection of your constituents' interests?

[Ishanov] On the contrary, I want to shorten their paths in the search for justice. If a person appeals to me right away and bypasses authorities, he has taken time away from others, ones who have really major and strategic problems and want to resolve them jointly with me. My problem is that I lose a great deal of time on those questions which can be resolved without difficulty at the party gorkom or gorispolkom level. After all, the electorate voted for deputies to local and republic soviets, justifiably hoping to find reliable help and support from them. So let them make use of their right.

[Yezerkiy] What do your visitors petition for most often?

[Ishanov] As a rule, everyday affairs. They want to obtain apartments and vehicles faster. They are exasperated by the red tape of municipal services and so forth. But I want to emphasize once again. If a citizen's demand is just, and if benefits for a person are established by law, he can claim them, and without intervention by a deputy to the USSR Supreme Soviet. At the same time, no deputy will violate the law, since he has been called upon to guard against violations.

It is another matter if a person has been treated unfairly and a disputed matter has not been resolved even at the republic level; then examination by a Supreme Soviet deputy assumes a more specific and fundamental nature. We can also find ways of resolving the problems that arise and call negligent or evasive officials to account if they are discovered.

In working with letters and requests from the working people, I am convinced that it is no less important to think more often about how to transfer authority to the local soviets more reliably and how to increase the activity and vigor of people's deputies in local areas. It is only with their help and active participation that we will be able to speed up the implementation of the many social and economic programs which I have mentioned.

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Eastern Donbass Region Coal Development

914E0014A Kiev UGOL UKRAINY in Russian No 9, Sep 90 pp 2-4

[Article by N.A. Denshchikov, director of Rostovgiproshakhta, candidate of technical sciences: "Eastern Donbass Development Prospects"]

[Text] In the Rostov oblast, a major coal-producing region of our country, the total coal reserves amount to nine billion tons. The largest reserves of high-quality anthracites are concentrated here, of which 1.1 billion tons are being developed by existing enterprises and 1.3

billion tons have been assigned for industrial development for the construction of new mines. The oblast has the Gukovugol and Rostovugol associations, which include 48 production units (mines) with a total capacity of 30.35 million tons of coal per year. The actual output for 1989 was 29.1 million tons. Of the total number of mines, 13 have a capacity of up to 300,000 tons per year, eight went into operation before the war, and 10 low-capacity ones were built quickly according to simplified designs in the 1940's-1950's.

The tendency observed in the 1970's of a drop in the production volumes in the coal industry of the oblast continues to the present. Over the last 15 years, coal output has declined by 11.5 percent. Other indices have also worsened substantially: the number of underground workers increased by 11.6 percent; the average monthly output productivity of a worker declined from 49.2 to 38.4 tons; the production cost of a ton of coal rose from 12.8 to 24.8 rubles.

The basic reasons for the drop in the technical and economic indices of coal production are the deterioration in the condition of mine equipment and the appearance of numerous bottlenecks in the technological layouts of the mines. In addition, the mines have been working for over 20 years without reconstruction. This has led to the wide dissemination of inefficient designs for stripping and working new horizons, and a substantial gap between the depth at which mining work is conducted and the underground horizon.

The inevitable tendency towards a drop in extraction from the main horizon has led to a growth in the length of workings supported and the gradation of transport. For these reasons alone, 14 operating mines in 1989 failed to meet their production targets and were over 2.2 million tons short on anthracite output; other indices worsened as well.

Reconstruction times are being violated unjustifiably. For example, the "Almaznaya" mine was to be put into operation after reconstruction back in 1977, but it is not finished to this day, and the extraction is performed according to a greatly inefficient design with additional transport stages. The situation at the "Gukovskaya" mine is also complex. The beginning of reconstruction is well behind schedule; as a result, not the best design option was chosen. The "Sambekovskaya" mine is extensively broken down after reconstruction. Due to exhaustion of reserves and low technical and economic indices, six mines will be closed by the year 2000 with a total capacity of 1.8 million tons a year.

Substantial quantitative changes have occurred recently in the technology of coal production, due to equipping mines with new mining technology. Various types of powered supports are in operation on stoping faces, whose proportion in the oblast has reached 57 percent. While at the initial stage that has a positive effect on the

output and operating indices of the mines, in succeeding years a tendency towards their steady decline has appeared.

Initially, because of their limited quantity the powered supports were introduced under conditions meeting technical requirements, so their use yielded good results. But later, the use of sets of expensive equipment in inappropriate mining conditions led to a loss in the rate of extraction, a drop in production and a deterioration in technical and economic performance.

This negative tendency appeared particularly in old, low-productivity working mines. The presence of short wings in the panels caused a growth in the volume work for assembly and disassembly and for setting up powered units, whose slow completion resulted in a drop in the use of basic production equipment. The absence of capacity at the juncture of transport lines retards the creation of independent operation of individual processes. Much manual labor is used for auxiliary operations.

In many working mines the productive seams have played out. The absence of comprehensive mechanization for very thin seams (less than 0.7 meters thick) makes it necessary to excavate them with cutting into the roof, which affects both production quantity and anthracite quality. And there is an entirely predictable growth in ash content by 5.8 percent, and this is an additional annual amount of ore delivered to the surface (over 1.5 million tons).

Thus, an analysis of the condition of the existing mines does not allow an expectation of increased output. For the oblast's miners, it is important to at least maintain today's level.

There can be one solution to the existing situation: the construction of new mines, for which a sufficient geological basis exists. The Gukovo-Zverevskiy rayon deserves attention. In its western part, where the basic working mines are concentrated, their reserves can only be expanded by deep (900 meters and lower) horizons. The eastern part is promising for the construction of new mines: "Obukhovskaya" No. 1, "Likhovskaya" and "Sherlovskaya." The huge 60th Anniversary of the Leninist Komsomol mine, put into operation in 1978 with an annual output capacity of 3 million tons of anthracite, is in operation here.

The Nesvetayevo-Shakhtinskiy region occupies a leading place in the Donbass in volume of anthracite production. Construction is under way in this region of the "Oktyabrskaya-Yuzhnaya" mine with a rated capacity of 1.5 million tons per year. The eastern part of the region is the most promising for new construction, containing the fields of the future mines "Bessergenevskaya" and "Razdorskaya."

The Sulino-Sadkinskiy coal region has not yet been developed, but it is already gaining in importance in connection with the shortage of fuel for the

Novocherkassk GRES [state regional electric power station], consuming a large amount of anthracite dust.

In these and other geological-industrial regions, nine geological sectors have been explored and readied for exploitation, with industrial reserves of over 1.3 billion tons of anthracite. The digging of nine mines in them is possible, with a total annual rated capacity of 14 million tons. However, the construction of four mines with a total capacity of up to nine million tons a year is planned to ensure anthracite production by 2005 at the level of 1975 (32-33 million tons per year).

The basis of the construction is the concept of creating mines of the future with an optimal technological and organizational structure, using a new generation of technological processes and equipment. Promising world-class features will be used, based on fundamentally new equipment and techniques for all production processes.

The "Oktyabrskaya-Yuzhnaya" mine is presently under construction. The mining-geological conditions are favorable here, which confirms the experience of operation of the neighboring "Yuzhnaya," "Mayskaya" and "Yubileynaya" mines. Leading crews of these mines have reached a level of one million tons of coal per year on the stoping face. The industrial reserves of the mine field are 113 million tons. It will be mined with two central-twin and two ventilation vertical shafts with capital cross-entries of the one-horizon design.

The preparation method is by panel with flank ventilation connections. The exploitation system is that of long columns along the strike with an average daily load of 880 tons on the face, equipped with a plough mechanized complex. The rock is transported to the basic heading by conveyor, and along the heading and the pit-bottom by sectional trains.

The space decisions of the buildings were made considering national standardized construction parameters, enabling the use of standard reinforced concrete and steel structures, as well as light metal unitized structures. The basis of the design of the buildings and structures on the site was the principle of continuity of technological processes with maximum possible interconnection of the main technological buildings and auxiliary structures. The design provides for environmental protection measures. A mine water desalination complex was designed with FRG specialists.

The construction of the mine is taking place along a wide front in three directions: at the central site and two ventilation shaft sites. Much attention is being devoted to the possibility of using permanent buildings and structures for the mine construction. The construction time is 80 months. The technical level of the mine's design is rather high. The advanced decisions employed ensure high technical and economic performance: the cost of industrial construction is 175.4 million rubles (including 141.8 million rubles for construction); capital

costs are 111.4 rubles per ton; average monthly productivity of a production worker, 78 tons; production cost of one ton of coal, 19.3 rubles; profitability, 2.2 percent.

The "Obukhovskaya" No. 1 mine is the most ready for the beginning of construction and has the best expected performance. Its design has been approved by USSR Minugleprom. The basis of the design is advanced mining technology and the experience of operating the 60th Anniversary of the Leninist Komsomol mine; the new mine directly adjoins its eastern edge.

The mine field is being developed on a one-time design by main and auxiliary shafts sunk to the final (second) horizon during construction. This will enable production to take place for 15 years without substantial capital repairs, and will ensure highly reliable, stable operation of the mine with a productive capacity of four million tons of anthracite per year with intensive working of one thin seam.

The stoping faces are equipped with complexes enabling a doubling of the average load on the face compared with those actually achieved under similar conditions. The rock obtained is put into the worked space of the stoping faces. The introduction of new techniques, comprehensive mechanization and automation of processes will enable a doubling of the productivity of production workers.

The first to be worked will be the k2 gently dipping, 1.21-meter thick coal seam, of simple structure, uniform over the entire area, with industrial reserves of 140 million tons. In terms of inclination, the mine field is divided into two working levels and is worked by five vertical shafts: two central-twin ones and three ventilation ones. The preparation is by panel and horizon. The working system is one of long columns along the strike and to the rise, with the mine thickness ensured by the simultaneous operation of six faces each 200 meters long with an average daily load of 2130 tons of anthracite with an advance of 1540 meters a year.

The design calls for building on the mine site: blocks of the main and auxiliary shafts with tower head-frames and above-mine buildings; an administrative-residential facility of two bodies; a lamproom; a VTsD-31.5 MNUZ ventilation unit; substations; an enrichment plant; a boiler; and other buildings and structures. The design devotes much attention to a set of environmental protection measures, of which the main ones are: two-stage scrubbing of the exhaust gases of the boiler and of the suction air in the lime crushing section; ceasing the discharge of unpurified and undesalinated mine water into surface reservoirs (desalination on electric dialysis devices); maximum use of mine decontaminated, purified and desalinated water (drinking-quality water only for living needs); reduction in the amount of land used for dumping by organizing the placement of rock from the workings to the worked space.

The mining technology used in the design ensures maximum extraction of reserves. Its main parameters

include pillarless protection of the headings and mechanization of the stoping faces, enabling a seam to be worked to its full thickness. Operating loss is 6.1 percent. Overall costs of environmental protection measures are 38.1 million rubles; the total economic effect from measures to protect the atmosphere and water is 27.3 million rubles.

The mine is to be put into operation in two startup complexes. The first, with an anthracite production capacity of 2.7 million tons a year, goes on line (the incline district) with full completion of construction of the surface facilities. The first complex is to take 94 months; the capital costs will be 360.9 million rubles, including 279.5 million rubles for construction and assembly work. The second has an anthracite production capacity of 1.3 million tons a year (the slant district). The construction time is 102 months; capital costs, 38.7 million rubles.

The design performance (mine capacity, four million tons of anthracite a year; average monthly productivity of a production worker, 125 tons; production cost of one ton of product and enrichment of the anthracite, 16.7 rubles; production profitability, 23.4 percent) indicates that the institute has designed the Donbass's largest mine for working a single 1.2-meter thick gently sloping seam at great depth. These exceed the progressive standards approved by the USSR GKNT [State Committee for Science and Technology] and USSR Gosstroy [State Construction Committee], and actually achieved in working mines of the Gukovugol association, including at the 60th Anniversary of the Leninist Komsomol middle mine, and the similar design standards for building the "Shakhterskaya-Glubokaya" mine.

As to the other mines ("Gukovskaya" No. 4, "Likhovskaya," "Sadkinskaya-Vostochnaya" No. 1), whose construction is scheduled to be done by 2005, their mining-geological conditions are somewhat worse than those of the "Obukhovskaya" No. 1 mine. Despite this, they will fully ensure economical production of coal.

The presence in the oblast of large reserves of high-quality anthracites allows the statement that very large mines can be built in this region; consequently, in the long run (after 2005) there can be a substantial increase in the level of anthracite production. The "Sulinskiye" Nos. 1, 2 and 3, "Razdorskaya," "Bessergenevskaya," "Sherlovskaya" and other mines are waiting their turn. It is thus possible to bring the oblast's coal industry to a position meeting modern demands by building new mines on a progressive technological foundation based on the need to introduce not individual machines and mechanisms, but comprehensive technological systems, encompassing the entire production process of coal output with all auxiliary and service operations. The need for such an approach is confirmed by the fact that each year the depth of mining work at the mines

increases, and extraction work is increasingly performed under the difficult and complex mining conditions of thin coal seams.

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ELECTRIC POWER GENERATION

Union Official on 'Crisis' in Electric Power Industry

914E0022A Moscow TRUD in Russian 23 Nov 90 p 2

[Interview with Nikolay Alekseyevich Pugachev, Chairman of the All-Union Federation of Trade Unions Elektrosyuz, by F. Yemchenko: "Minus Electrification"]

[Text] This joke at one time was fairly widespread among students. On an examination in scientific Communism a student was asked: Just what is Communism? "It is Soviet power plus electrification of the whole country," he answered without hesitation. "And what, in that case is socialism?" said the professor, trying to be more precise. "Socialism," the student also confidently articulated, "is Soviet power minus electrification of the whole country."

We could not have foreseen that with time we would discover a substantial share of truth in this joke. For a quarter of a century, our country's introduction of power capacity into operation has stayed at one level, but in the last two years it has dropped sharply. Today the power systems' reserve capacity has fallen to 4-6 percent versus the standards of 13 percent. In the U.S., for example, this indicator exceeds 30 percent.

As we see, the potential of USSR Minenergo [Ministry of Power and Electrification] for maintaining the required reliability level of electric-power and heat supplies has practically been exhausted. A persistent and, moreover, ever-growing shortage of electricity and heat has taken shape in the country. Each day, compulsory restrictions of the customers' electricity during peak-load hours are in effect.

An especially tense situation has taken shape in the Transcaucasus, the North Caucasus, the Ukraine, the RSFSR's Central Chernozem Zone, the Lower Volga, Central Asia, the Buryat ASSR, and Chita Oblast. With the onset of cold weather, more than 40 of the country's large cities are experiencing inadequate heat in apartments, schools, and children's institutions, causing justified outrage by people.

Reference was made to this matter in particular at the constituent congress of the All-Union Federation of Trade Unions Elektropfsoyuz. Its delegates adopted a number of declarations and promises to the USSR Government and sent a letter to the country's President with the demand that the necessary steps be taken to

reinforce this basic branch of the national economy and to resolve the power workers' urgent social problems.

A couple of days ago a TRUD correspondent met with N. A. Pugachev, Chairman of the All-Union Federation of Trade Unions Elektrosoyuz.

[Correspondent] Nikolay Alekseyevich, a month has passed since the congress at which you were elected federation chairman. Has the trade-union staff managed to solve even one of the problems that the congress delegates spoke about with such concern?

[Pugachev] Frankly, the situation in the branch remains critical. The outflow of the work force is increasing, the people leaving being the better qualified workers. To replace them we are forced to take at random people who often are incompetent and undisciplined. As a result, the number of accidents during operation is not being reduced. The sources of all the negative phenomena in the working collectives come down, in essence, to one thing—a sharp drop in the prestige of the power workers' vocation. And the trouble here is not just at the wage level, although in recent years the branch has slid to last place in the fuel-and-power complex in terms of this indicator. Much more important, in my view, is the fact that the working collectives of power stations do not see a clear future for themselves. Indeed, up to now there have been no programs for power engineering. The construction of new stations has been halted entirely at some places, and in others it continues at a snail's pace. Here the "greens" picket the construction site, there the local soviets do not allocate land for developing the site. There is the impression that we are living not in a state but among tribes that speak different languages. No one listens to anyone else and no one understands. Sometimes decisions about the stations depend upon how many people gather at a meeting, not upon a review of the designs by skilled consultants.

At times you are amazed: can it be that people do not understand that life today is simply impossible without power? Yes, many mistakes have been made in developing this branch, but this is not at all an argument in favor of doing new things.

[Correspondent] Pardon me, Nikolay Alekseyevich, but your assessment of the power-engineering situation seems to me more reminiscent of the position of an administrator, not a trade-union leader. The problems that we spoke about should be solved by the ministry and the government. Right?

[Pugachev] Possibly. But, in the first place, our position in these matters coincides completely with the point of view of the industry's management. Second, all these problems are closely tied in with our workers' social position. The one cannot be separated from the other. At the convention which took place at the Konakovskaya GRES, representatives of working collectives and the ministry came to a common opinion, and we generated recommendations for stabilizing the country's power system.

The demands that the branch's trade union worked out called for, in particular, a 50-percent increase in wages and salaries of power-enterprise workers engaged in repair and operation of the equipment of power stations and of heating and electrical grids, increase of the wage fund having been freed from taxation, and the charging of these expenditures to prime generating costs. The enactment of legislation for social protection of the workers' collectives of the electric-power construction workers who have been released in connection with the mothballing and curtailment of construction of power facilities, including AES's. The allocation, beginning with 1991, of centralized capital investment for the special purpose of eliminating the fund for dilapidated housing and emergency housing.

These are only the main points of the demands. Incidentally, the measures for implementing them were approved by the Deputy Chairman of the USSR Council of Ministers L. D. Ryabev. It would seem that it is only a matter of putting them into action. But here the bureaucratic machinery entered into a battle, as is said, not for life but for death. With preparation of the draft of the USSR Sovmin [Council of Ministers] decree about meeting our basic demands—the increase in wage and salary scales—USSR Deputy Minister of Finance V. A. Rayevskiy at first signed this document. And then suddenly he removed his signature. In brief, he acted on the principle: I am a man of my word—I want to give it, and I want to withdraw it. The representatives of USSR Goskomtrud [State Committee for Labor and Social Problems] refused to sign it at all, motivated by the fact that tomorrow, they say, delegates from other branches will appear before them with the same demands. This, then, is the "constructive dialog of government with the trade unions."

[Correspondent] At the congress, you will recall, the delegates even set a deadline for meeting the demands that you spoke about—by the first of November. It turns out that the government took no notice of it?

[Pugachev] Actually, we demanded that wages and salaries be raised by these dates. But, as you see, things are right where they started from. I have sought a meeting with N. I. Ryzhkov. Much will depend upon what position the premier will take. We sent an open letter in the name of the congress to the country's President, M. S. Gorbachev, in which we set forth the crisis situation in power engineering and we expressed hope that the President would express his attitude toward development of this basic branch of the country's economy and would consider the consequences of the power crisis.

[Correspondent] Is it worthwhile to pin great hopes on such messages? One can foresee that there will be many such "loud" letters sent to the President's secretariat. Don't you consider that some other kinds of measures are necessary?

[Pugachev] Our branch, as you know, is in a special position. By law we do not have the right to strike. But

nevertheless, our demands, which were widely discussed at the trade-union congress, recorded this item: "In case of the government's refusal of negotiations or in case they are drawn out, or measures are not adopted in accordance with the recommendations and demands of the branch's trade union, the laboring collectives in power engineering retain for themselves the right to resort to actions short of restricting operating capacity."

[Correspondent] Perhaps it is not worthwhile to threaten the "knife-switch" right away?

[Pugachev] The working collectives rely on us to protect their rights and social interests. We will not manage without a persistent, principled struggle. We will use all means available to us.

Open Letter to Gorbachev on Electroenergy Problems

914A0107A Moscow SOVETSKAYA ROSSIYA
in Russian 11 Nov 90 p 3

[Letter to Gorbachev from Soviet power engineers and builders: "In the Cold Wind".]

[Text] To the President of the Union of Soviet Socialist Republics, Comrade Mikhail Sergeevich Gorbachev

Dear Mikhail Sergeevich!

We are writing to you on behalf of two million power engineers and builders who are gravely concerned over the sharp increase in critical phenomena in our basic sector of the national economy. The sector includes hundreds of thermal, hydropower and nuclear electric power stations, the country's sole Unified Electric Power System, over five million kilometers of power transmission lines, and over 5,000 various enterprises. Its basic funds exceed 110 billion rubles. This is the world's second largest power system after that of the USA.

Unfortunately, it must be stated that the basic facilities of the national electricity system are substantially outdated, and the commissioning of new power capacity declines from year to year. Against a background of cutbacks in nuclear power and hydropower construction, the intensity of use of thermal electric power plants has exceeded sensible limits. One-third of the operating equipment is due for refitting or decommissioning.

The sector has been helped greatly by warm winters in recent years, and by the organization and discipline of workers. But our capabilities are not unlimited. The country's economy is already short about eight million kilowatts. If decisive measures are not adopted, the shortfall will triple in five years.

The power situation in leading regions of the country is complicated: the Center, Northern Caucasus, Transcaucasia, the Ukraine. There is a tense energy situation in

the Buryat and Chita oblasts. Electricity stations in the Primorsk region are on low fuel rations.

The public heat supply situation going into the winter gives cause for concern. The shortage of heat capacity can be felt in Krasnoyarsk, Vladivostok, Novosibirsk, Tomsk, Ulyanovsk, Chelyabinsk, Kuybyshev and many other cities.

In such circumstances, one would expect stepped-up power construction. The opposite is occurring. Submitting to the pressure of meetings, local authorities have put on hold the fate of 60 large-scale power projects, both in operation and new. In practice, this means that tomorrow's economy will not receive 165 million kilowatts, about half that available at present.

Electric power could become a major obstacle to the economic recovery expected from the transition to a market. Experts' calculations and world experience demonstrate that even if all the levers of energy conservation can be activated and the growth in demand for kilowatt-hours thus reduced by 30-45 percent, their production must be sharply increased. The annual commissioning of power capacity in the upcoming five-year plan must be at least 8-10 million kilowatts, and 12-14 million kilowatts in the next one.

The drop in prestige in the power worker's profession is very troubling. There is a large-scale outflow of skilled professionals to cooperatives and to other enterprises where the pay is higher. Under conditions where power projects are being stopped one after another, the sector's construction and assembly capability, built up over decades of hard work, is suffering irreplaceable losses.

Electric power is by nature international. It has been seriously affected by ethnic demonstrations in various regions of the country. Experienced, skilled personnel, not of the local nationality, are leaving. Important sectors of electricity plants are inevitably left bare, leading to growing damage to equipment which threatens serious accidents. Attempts are underway to split up the sector along ethnic and regional lines, to separate electric power from energy construction.

We were encouraged by the president's Decree on the Stabilization of Economic Links, and actively support the urgent measures undertaken to this end.

Energy workers alone cannot bring the sector out of its critical situation and accomplish its further development. We are counting on the active support of you, Mikhail Sergeevich.

We ask that you:

- review the problems of electric power development at a special session of the President's Council and the USSR Federation Council, and based on the review's results issue for the country a report "On the Status of the USSR's Electric Power Industry," in order to obtain public support for accelerated development of the industry;

- instruct the USSR Council of Ministers to speed up the drafting, review and approval of a new Long-Term USSR Power Program;
- in view of the low social protection of the industry's workers, instruct the USSR Council of Ministers to review the system of price formation in the electric power sector, ensuring the guaranteed social rights and pay scales of the top three industrial sectors; and
- adopt the "USSR Law on Electricity Production, Supply and Consumption" at the beginning of 1991.

Clearly recognizing the sector's full responsibility for the state of the economy, the social climate in the country, and the people's mood, we power engineers and builders for their part are doing everything possible to provide the economy and the public with energy.

Adopted at a meeting of the country's power engineers and builders. Konakovo.

Solution to Nuclear Power 'Crisis' Discussed

914A0107B Moscow KOMSOMOLSKAYA PRAVDA
in Russian 10 Nov 90 p 2

[Interview with V. Bobrov by V. Abramov on "crisis" in Soviet nuclear power industry, ways of overcoming it: "The Shadows of Uraniumgate"]

[Text] **The Soviet nuclear power industry is in crisis. Expert V. Bobrov discusses possible solutions.**

[Bobrov] Due to the extreme monopolism in our science and industry, the development of the nation's nuclear power is in a traditional channel laid out decades ago.

No one can close off this channel; the ideology of the "peaceful atom" has brought together under the roofs of their institutes almost all the scientists working on the problem. The concentration of such forces at first glance appears to be a good thing. Breakthroughs in knowledge and technology are theoretically possible. Yet practice demonstrates that there have been no breakthroughs for many years.

Only the Chernobyl catastrophe forced a halt to the mindless stamping out of obsolete, far from fault-free reactors. The USSR's nuclear community has proposed that their production be halted for some 15 years, and ordinary thermal power units be built on the new sites allocated for AES's [nuclear electric power plants]. Until better times, so to speak, when there will finally be truly safe, high-efficiency reactors. One must conclude that quick, positive changes in nuclear power cannot be expected. While people were receiving awards for this development of science and technology, progress moved forward and society became smarter; it no longer allows deadly experiments to be carried out on it.

[Abramov] Nonetheless, experts do not tire of repeating that the atom is not as frightening as many fear. Examples are cited of the successful development of the nuclear power industry in France, Switzerland and the

United States. And the conclusion is drawn that the radiophobia occurring after Chernobyl is the main brake on the path of reform.

[Bobrov] In my view, calling radiophobia the cause of the crisis means putting everything upside down. Radiophobia is not a cause, but an effect. It is a natural reaction of people.

Let's leave aside even the numerous shortcomings discovered in various nuclear facilities in the years since Chernobyl. (As it turned out, there are faults with the design, construction and technology of AES's.) They are also an effect of the total lack of supervision and voluntarism characteristic of all levels of the nuclear industry until recently.

I repeat that the main reason for the crisis is that for the last thirty years our scientists and engineers have been uncritically exploiting once-revolutionary ideas of people who in the 1930's and 1940's knew how to put the atom at the service of man.

Since that time, about five percent of reactor fuel, uranium-235 and plutonium-239, has been used. The rest has been waste. But this is thousands of tons of a very valuable substance. The method of obtaining useful energy from waste, and more precisely, directly from uranium-238, has been ignored up to now. A certain scientific and civic courage is required to find such a method.

It is simpler to live with what has been found and approved earlier. So there has triumphed a uranium-plutonium fuel cycle which interested persons continue to stubbornly support to this day. In the United States, on the other hand, back in the 1950's they adopted a risky idea bypassing the uranium-plutonium cycle, and achieved impressive results. In two or three years these will cease being a scientific and technological secret, and we will learn all the details. But by then it will already be too late.

Another example. From the analogy of "from the atomic bomb to the hydrogen bomb," our scientists went "from the atomic reactor to the thermonuclear one." A seemingly logical path. The construction of "Tokamaks" was begun. Decades again passed. Now, probably even non-experts can see that these plants can only be unique, experimental. Whatever positive results the "Tokamaks" have yielded, a highly efficient thermonuclear technology can hardly be developed on their basis. In this instance, we are trying to endlessly perfect the steam engine. Isn't this a dead end?

Our academician V.V. Kadomtsev has stated that thermonuclear power could appear in the first third of the next century, with the fuel for it (helium-3) supplied from...the moon. It's different in the United States. The distinguished physicist E. Teller has concluded that an energy "perpetual engine" should be sought not in nuclear fusion, but in splitting heavy nuclei. Why? To obtain self-contained fissionable plasma: a long-term

source of great energy. And it is achieving success. This is clear from the latest reports: the USA's House of Representatives, in recently approving NASA's budget, decided to allocate major sums for preparations for a flight to Mars with a spacecraft with a nuclear power plant.

It is understandable that neither our traditional reactor with its negligible efficiency nor the "Tokamak" with its bulky size could serve as the engine for a Martian spacecraft. This means that renouncing the conventional methods of obtaining power from the atom led U.S. scientists to a new technological breakthrough. We are not even doing work in this area. Isn't that why the Pentagon rejected the suggestion of a joint Soviet-American flight to Mars, basing its refusal on the possibility of a leak of technological information? In fact, why give one's secrets away to someone who is hopelessly behind...?

[Abramov] Are there specific persons responsible for our backwardness?

[Bobrov] Three "names" can be cited: the USSR Academy of Sciences, the former USSR Minsredmash, and the I.V. Kurchatov Institute of Atomic Energy.

I have already mentioned monopolism. The lion's share of our work on the atom has been supervised by the Kurchatov Institute, which has had and has today a specific director and Scientific Council with their prejudices, authority and scientific ambitions. In such a situation, it is difficult for an individual or a group of young people to reach the general scientific community, much less win an argument with the monopolists and obtain from the government the authority to carry out their ideas. Alas!

[Abramov] You refer to the experience of Americans who are not afraid to go down alternative paths in the search for truth. Yet the examples cited are only plans. The AES's built in the USA operate on the same—as you put it—obsolete uranium-plutonium principle.

[Bobrov] The power plants, yes, they are in operation. But the designs I mentioned are not at all just on paper. I should remind you of SDI. Our leading scientists spent a great deal of effort to portray this child of the world-famous Livermore Laboratory as antihuman, ultraexpensive, and technologically imperfect. Their arguments were more political than scientific. There was no objective analysis of SDI in the Soviet press.

The point is that the weapon in SDI will be not a onetime nuclear bomb, but a new type of installation with the very same self-contained plasma which I mentioned earlier. Plasma provides a multiple nuclear charge. This unit can be in military service for several years; it can be fast-firing and small to boot. It destroys nuclear projectiles, aviation bombs and missile warheads with a neutron beam. Such a weapon is not at all devastating. It is beyond doubt that the Americans are placing their bets on it. The other variant, where only one shot is fired

from one satellite, is simply impossible due to the cost for any country, even the wealthiest one.

There is now apparently a cooling towards SDI in the United States. But this is the result of successes in Soviet-American relations, which does not lower the very high level of the project's scientific ideas and the quality of their development.

[Abramov] If we believe your judgments of Soviet research in the field of nuclear fusion, then one cannot understand why the Americans in 1973 concluded and in 1988 extended the agreement with the USSR on cooperation in this field.

[Bobrov] First of all, I think the United States is strong enough to allow itself to participate in international projects which do not promise substantial dividends. One needs to have an idea of the work done by other countries! Second, the agreement with the USSR on nuclear physics issues only underscores the antimonopolistic nature of the organization of their science, which makes it possible to follow genuinely different paths. Third, one must not forget competitors' disinformation systems. Whatever the rapprochement of political positions, there remain, and evidently will remain, efforts by certain people, firms and countries to be first in science and technology. This means that "disinformers" will also remain. The United States has a well-developed system of "disinformers." The military-industrial complex above all does not spare money for this. If a rival—a country or firm—"bites at" the disinformation, the benefit for the one putting it out greatly exceeds the money spent.

Many of our scientists confirm that "disinformers" appear regularly in the USSR, and shameful as it may be, are sometimes successful. I don't exclude the possibility that some joint work on nuclear energy is nothing more than a diversionary tactic.

[Abramov] You are a well-known expert with a supply of information yielding discouraging conclusions. Why are you reaching them only now, and not earlier when the crisis might have been prevented?

[Bobrov] Three times I did not recognize as an invention a reactor type which was nonetheless introduced. Years later, a reactor of just this type blew up at Chernobyl. I spoke out in the press on the disasters caused by the fathers of Soviet nuclear power. And what happened? Other than outrage and condemnations of my suggestions as unfounded and of little use in practice, nothing. There is nowhere an in-depth discussion of the problems touched on in our conversation. Yet the costs, the incorrect orientation of major scientific work is no less adventurist than turning back rivers.

[Abramov] What is the solution? As far as I understand, this is not only a matter of the unsuccessful fate of your scientific suggestions?

[Bobrov] Correct. It is generally known that the selection of promising ideas and inventions in the USSR has little in common with scientific competition. It is more a backstage struggle of academic authorities. How could we not be in a crisis?

The solution is in a public and intensive discussion of the accumulated problems in science and technology, the creation, on the basis of academic institutes, of various temporary creative groups which would develop ideas

into results, free of administrative and academic controls, independent in the full sense of the word.

The experience of mass stormings of scientific problems must be resurrected on a modern information base. Automated expert systems of the "artificial intelligence" type enable selection of the most fruitful ideas and solutions, regardless of the authors' scientific titles.

Scientists must not remain alone with their own thoughts, without the force or resources for implementation.

All-Ukraine Strike Council Formed*91P50030A Moscow RABOCHAYA TRIBUNA in Russian 31 Oct 90 p 2*

[Unattributed report: "Preparation for Strike"]

[Text] Kiev—A session has been held here of representatives of strike committees at which a coordination council for an All-Ukraine political strike was legally established.

The day for the beginning of the strike has not yet been determined, although council member Mikhail Ratushnyi declared that in all probability it will be next month some time. As of 1 November, the coordination council will turn its attention directly to preparations for the strike, participants in which will be workers and officials as well as students and railroad transportation workers. The slogan of the strike calls for the resignation of the republic's Supreme Soviet.

RSFSR Independent Trade Unions Chairman Interviewed*914F0015A Moscow TRUD in Russian 19 Oct 90 pp 1,2*

[Interview with I. Ye. Klochkov by V. Pisarchuk: "I'm Certain They'll Have To Reckon with the Trade Unions': Chairman of the RSFSR Federation of Independent Trade Unions, AUCCTU Deputy Chairman I. Ye. Klochkov, Answers Our Correspondent's Questions"]

[Text]

[TRUD] Igor Yevgenyevich, talking with you on the eve of what are undoubtedly important events in the life of the trade unions, I personally would not want to use terms like "historic," "landmark," or "fateful" for the 19th Congress. Life, as you and I and the majority of our compatriots know it today, somehow does not dispose one to hyperbole. Compared with previous trade union leaders, you spend an unusual amount of time traveling around the country. Just a few days ago you returned from a trip to Siberia and the Urals. What did you see there, who did you talk with, and what made the strongest impression?

[Klochkov] What can I say, we are living through very hard times. The deprivations people are enduring have led them literally to the limits of patience. Convincing in this respect were my direct meetings in enterprises, organizations, institutions, and labor collectives, as well as with union activists in the oblasts, krais, and autonomous republics. I consider those kinds of meetings an essential and mandatory condition for maintaining constant direct contact with our member organizations and for better comprehending the problems building up in the various branches and regions. They allow for surer tactics and policymaking in our interactions with the government, the legislative powers, and other central organs of the Russian Federation, which is in essence the main function of the trade union center.

On these trips I try to discern people's attitudes toward serious, topical questions. I try, as a rule, to go to stores, markets, and plant cafeterias, to take a good look at prices, not to avoid standing in line.

I'd like to point out that conditions vary from region to region. In Novosibirsk, for instance, there is a large selection of foods in the stores and cooperative shops (I mean here the consumer cooperatives) in comparison with, for example, Perm. Meat costs from 3.00 to 3.70 rubles in the cooperative shops and 6.00-7.00 in the market. There are dairy products, macaroni goods, and vegetables for sale. In other cities the situation is worse.

This speaks to the fact that, given the general crisis in the economy, a lot depends on the local authorities, local initiative, on the general mood in the oblast or town. Although, naturally, that kind of struggle for survival in individual regions can in no way replace overall radical economic reform for the country.

In my meetings with union activists, it was important to evaluate more specifically the place and role of the trade unions, the specific union organs in the development of the public process, ways to overcome apathy and the subordination syndrome.

We have taken up the difficult task of reforming the Russian trade union movement, of building it up on new principles. So, of course, it is important to clarify the mood with respect to reform, the attitude toward it in the primary organizations, in the middle link, the willingness to fight, to take part in collective actions in the interests of the workers.

The main thing I brought away from these meetings—and delegates to the 19th Trade Union Congress of the USSR from the Zapadno-Sibirskiy and Uralskiy (and a little earlier—Severo-Kavkazskiy and Severo-Zapadnyy) regions took part in them—was the general understanding that trade unions must become different under the new conditions. It is essential that we delimit ourselves from the old model of a union movement, that we make our trade unions the true expression of the interests of workers involved in hired labor, a strong partner in rule.

[TRUD] How, according to your prognosis, will our real life reflect on the moods of the congress delegates? Will the congress itself be generally "left" or "right," and will it do something that people will say "thank you" to the trade unions for?

[Klochkov] I would like to hope that the congress will be constructive and will pass the kind of documents that will have a positive and constructive influence on trade unions' place and role in society. Will it be "left" or "right"? I think it will be both "left" and "right," because our life and the disposition of forces in society are such that we have quite a few conservatively thinking as well as quite a few radically oriented people. Therefore there is certain to be a definite struggle over ideas and approaches to these and other issues at the congress.

Will the congress be able to pass documents that will directly affect workers' situation? I think the main thing this union congress ought to resolve is to demonstrate the trade union's firm desire to unite, for unity. In unity there is strength. By being united they are capable of large collective actions, of supporting workers' demands through coordinated and balanced actions.

As for legislative practice, then, I'd say, we need to change the labor laws completely. Under market conditions, employer-worker relations are taking shape that are completely new to us. I would think that at the union level it's logical to work out the bases for legislation on key points (say, for collective agreements, for property, and others), whereas the union republics, especially Russia, will pass its own resolutions itself on these issues, which will mean a struggle with the Russian trade union center.

[TRUD] Igor Yevgenyevich, trade unions as an institution in the world labor movement will soon turn 200. Do you agree that they are mainly the fruit of the market? And do you agree that the presence of the market is precisely the condition without which our trade unions will never become a real force in general?

[Klochkov] The trade unions, indeed, are the fruit of the market. And the history of their development has led to a kind of law: three main forces, I would say, must interact in the socioeconomic arena: the employer, the hired workers in the person of their professional unions, and the government. By opposing each other they will find compromise solutions, will reach a consensus, will ensure the society's forward movement. The trade unions are the element that cannot possibly be excluded from the trinity. Otherwise you will have workers' spontaneous actions, constant outbreaks of social tension, destructive strikes, and so on. That is, there will definitely be an attempt at self-defense. This comes out of history. Out of the history of the market. But when a struggle is spontaneous it is more destructive.

I'd like to say that our "official" trade unions are actually the handiwork of the administrative-command system, they were built into it, they serve that system, they carry out a significant share of state functions, and this in general has been the main reason for the development of reform, the profound reform of our labor union movement. People simply don't need the old trade unions today.

One of the chief characteristics of our past is the fact that we in the union movement, as society as a whole, were excessively ideologized, and we looked at the economy and union activities through the prism of ideology. It was precisely for ideological considerations that we didn't enter into direct and close ties with, say, the YeKP—the European Confederation of Trade Unions—and with the MKSP—the International Confederation of Free Trade Unions, orienting ourselves toward the VFP [All-Union Federation of Trade Unions]. In my opinion, we need to give some thought at the congress to our international

orientation. The new thinking initiated by M. S. Gorbachev is supported in the world, in the country. Priority for general human values, the construction of an all-European house, and the necessity for all-European cooperation shall confirm those processes going on right now in Europe. They must, I think, have an impact as well on the development of Soviet trade unions' international policy. And it seems to me that we must find paths for cooperation with all associations, especially European ones. As for the VFP, we need to analyze thoroughly our position in this organization.

[TRUD] Let's go back to "home" issues, though. Which program for the transition to the market are you personally for—the president's, Shatalin-Yavlinskiy, or the government's?

[Klochkov] The Shatalin program was put together after the well-known Yeltsin-Gorbachev agreement, when their efforts were joined and a conception was worked out at the base of which lay the "500 days" idea. I think we ought to take this program as a basis now. But the Russian trade union center (there was talk of this at our meeting with the republic government on 12 September and at the Constituent Congress) cannot agree to the program's implementation beginning after the decree of only the Supreme Council. We consider the broad clarification to the people of the concrete points of the impending reform through the "Trade Union-Government" discussions essential. This could be done for the basic economic regions of Russia. And we have that kind of agreement with the Russian government.

This is essential if we're going to deal with the alarm that now characterizes workers' condition. We need to explain what reform is in general and what social guarantees it implies.

[TRUD] Igor Yevgenyevich, in the corridors of the Kremlin Palace of Congresses where the Constituent Congress of the Russian Communist Party was held I accidentally turned out to be a witness to how you were sought out in Murmansk over the telephone. It was as if they'd had the idea of proposing to running you for the Central Committee of the Russian Communist Party. I'm interested, what did you reply to this suggestion?

[Klochkov] Well, since you're already so well informed, then I'll tell you right out: in that conversation I set forth my view, which has been maturing in me for a long time, of the relationship between the trade unions and the party. First of all I said that I had made the choice for myself. Since I was elected chairman of the Federation of Independent Trade Unions, I have a great responsibility. And I don't consider participation in the higher elective organs of the party possible for me, inasmuch as that kind of participation would significantly tie my hands and restrict my freedom of action. No matter what anyone says, that's a fact. I think that this kind of approach would be proper for other trade union leaders as well.

But at the same time I'm against the proposals for a "general" secession from the party by freed trade union workers. Those kinds of demands would be a violation of the rights of the individual, the rights of the person. Just as religious views and political convictions are a person's private affair.

[TRUD] In that case, how do you look on the fact that in the apparatus of the FNPR [Federation of Independent Trade Unions] Council there were representatives from various parties and public movements?

[Klochkov] I have no problem with that. I think it's inevitable. Even today not all workers in our apparatus, including executives, are CPSU members. And we're going to be bringing people in regardless of their party affiliation.

[TRUD] Igor Yevgenyevich, how are your personal relations with the "government men" whose names never leave the pages of the press today? On both a purely human and a business level.

[Klochkov] After the formation of the FNPR, I had several meetings with Boris Nikolayevich Yeltsin. The last one was not that long ago, after he came back from a long trip across Russia. It was a thorough, detailed, practical discussion of policy and actions aimed at Russia's regeneration, at the solution of the fundamental issues raised at the 1st RSFSR Congress of People's Deputies. On the position of the Russian trade unions in this respect, on the paths for interaction for the Supreme Council and the Russian trade union center.

I would like to say that Boris Nikolayevich and I reached a mutual understanding on the main point: trade unions are a major force that must be reckoned with, and relations between the trade unions, employers, and the authorities must be constructed on the basis of a system of agreements. We need to impart new meaning to the system of agreements, fill them with new content. Beginning with the agreement at the enterprise, which must be, essentially, an act fortifying the conditions of sale of manpower, and continuing right up to the agreement with the government, an agreement regulating certain individual and very important all-Russian problems.

I have met many times with Ivan Stepanovich Silayev on workers issues. On 12 September, as was already said, a meeting was held at our trade union center with the cabinet of the Council of Ministers. Very substantial work is going on with the deputy prime ministers. Especially with Yu. V. Skokov, the first deputy, who is in direct contact with the Russian trade unions. We are resolving many concrete issues on a practical basis.

I would emphasize especially that we are taking direct and active part in the lawmaking work going on in the Supreme Council.

With respect to the leaders at the union level, I am personally acquainted with Mikhail Sergeyevich Gorbachev and with Nikolay Ivanovich Ryzhkov. The

recent meeting with the leaders of the country's trade unions demonstrated the president's interest in the country having strong trade unions, his understanding of the necessity for regular meetings and permanent ties between the president's council and the trade unions. I feel that this is very important right now for the consolidation of all progressive forces and for strengthening the role of the trade unions.

[TRUD] Half a year has passed in the life and activities of the FNPR. Can you cite telegraphically, concisely, the most important actions to the Russian trade union movement's credit?

[Klochkov] The first is the organization of the Murmansk conference and the passage of its declaration. Already today decisions that will affect the interests of 10 million Northerners are 90 per cent ready. The second is the 18 August act in support of workers' health care. I would speak as well of the resolution of several conflict situations, with the participation of the FNPR Council, that might have led to strikes. Tension has been eased, I'd say, in the Chelyabinsk tractor factory in casting production, in the Norilsk mining-metallurgical combine, and in the Rostov Truboprovodstroy trust. In Kostroma recently a trade union strike committee was formed which with our help entered into negotiations with the government and resolved practical issues that might have led to a municipal strike because the people, outraged to the depth of their souls, had already gone out into the streets. Naturally I also consider important the beginning of our lawmaking activity in parliament. Our goal is to pass a package of laws that will truly guarantee a social safety net for working people under market conditions and will provide a sound legal foundation for trade union activity. However, let us not forget that the FNPR has only half a year's experience.

[TRUD] Igor Yevgenyevich, imagine that today is 29 October, the USSR Trade Union Congress has completed its work. What's ahead?

[Klochkov] Work. Implementing the program, the line, that the congress has formulated, strengthening the solidarity, the unity of the trade union movement and of our Union. And the most important will be not to succumb, I would say, to those this-minute, state-of-the-market, often provocative actions of individual forces that are trying to tear the Union apart, to break up the peoples. But we workers in the trade unions, especially the congress delegates, we must understand that for a working person there are no ethnic boundaries inside our common market, the economic expanse of the Union. No matter what happens, it will be, this Union, because it will remain that common market, since there is no other.

Our ties are close enough, interwoven enough, that we need each other. Regardless, I repeat, of ethnic characteristics. Therefore we need to conduct a line for the consolidation of workers' forces, the forces of trade unions in the struggle for workers' rights. Moreover, each

republic and each branch has its own program. Branch congresses are over, republic congresses are over, our Russian Constituent Congress is over. They have their programs, they have their problems, which need to be resolved and results achieved.

[TRUD] And what, in your opinion, will be the role of the Union's trade union center in resolving precisely these branch and republic programs?

[Klochkov] The main thing is to act—at the level of the president, the USSR Supreme Council, the government—at the instruction of our member organizations, at society's instruction. Everything that requires a decision at the union level, all this must be formulated and passed up and be put to the Union trade union center. Herein lies the utility and necessity for member organization, who are going to create, or so we hope, the All-Union Confederation of Trade Unions of the USSR.

[TRUD] So, are we going to part with the abbreviation AUCCTU without any regret?

[Klochkov] I think that we need to part with this page of history and with not only all abbreviations but also all stereotypes engendered by the many decades of our former sociopolitical, economic system. But I'd like to suggest, rather than "executing" our past, drawing lessons from it. We need to keep it in mind, we need to look into the future, we need, truly, to create free and independent trade unions that can become a force capable of representing and defending the interests of the working man.

Newspaper TRUD Registered, Readers' Input Solicited

914F0045A Moscow TRUD in Russian 18 Oct 90 p 1

[Unattributed Report: "TRUD Receives Certificate"]

[Text] On 16 November, a ceremony was held at USSR Goskompechat [State Committee for the Press] at which a certificate of registration was presented to the newspaper TRUD. The USSR Trade Union newspaper received registration number 183. USSR Goskompechat First Deputy Chairman D. Mamleyev presented the certificate to TRUD Chief Editor A. Potapov. The General Conference of USSR Trade Unions and the working collective of the publication were registered as the newspaper's founders.

In February 1991 our newspaper will mark an anniversary. Founded seventy years ago as a popular workers' newspaper, from its very first issues it has set for itself the task of defending the workers' interests. The registration certificate which the newspaper TRUD received declares this very goal as its basic purpose.

Without any exaggeration this can be called a special day in the history of the newspaper. It goes without saying, that it is not merely a matter of official recognition of TRUD at the state level. The very principle of the

activity of the editorial staff is significantly changed, as they become co-founders of the newspaper. From this day hence, our working collective will bear equal responsibility with the VKP [possibly, All-Union Book Chamber (national bibliographic center in Moscow)] for publishing the daily popular newspaper. And that responsibility, one must say, is not a light one. Just yesterday everything was much simpler: the multi-million circulation (TRUD now has more than 21 million subscribers) with relatively stable state supplies of paper, at state prices, brought the founders a solid profit.

Market relationships, which have an immediate affect on the publishing business, have put into sharp focus questions which no one had to think about before: How to set up our own printing facilities? Where, and at what prices do we buy paper? How do we earn the currency to maintain correspondent posts abroad?—and so on. How can we solve them? With the receipt of our registration certificate, our collective, in accordance with the USSR Law "On the Press and Other Mass Information Media" is granted the rights of a legal person, and economic independence. And that means that it now has every ability—in cooperation with the VKP—for working under the new economic conditions.

Yes, the newly established subscription price, which is not to our liking, will be reflected in TRUD's circulation. And nevertheless, preliminary data even now give us grounds to hope that the readers will remain faithful to their newspaper. And we have no right to disappoint them. Without dropping the popular sections and rubrics which have gained general recognition, we are seeking new topics, new directions, and new heroes of newspaper materials.

And here we require your help and support, readers. How do you visualize TRUD-91? What should the newspaper reject in its form and content? What sort of changes should be introduced to our work?

We await your letters. Please mark the envelopes: TRUD-91.

New Focus of TRUD Outlined by Congress

914F0031A Moscow TRUD in Russian 30 Oct 90 p 1

[Appeal to readers from TRUD editors: "TRUD is Your Newspaper, Dear Readers"]

[Text] The congress of the nation's trade unions, among other things, did a good and noble deed for the largest circulating workers' newspaper and for you who are its readers. It unanimously decided

to declare TRUD the official newspaper of the USSR trade unions.

Thus, it not only replaced but eliminated one line from under the newspaper's heading, which for many decades

proclaimed it to be an ACCTU [All-Union Central Council of Trade Unions] organ, arbitrarily limiting its scope.

Thus, the official outlook of the newspaper was not only made more democratic, but more humane as well.

While overhauling TRUD's status, the congress stressed that:

first, the general political newspaper of the trade unions speaks directly to the broadest possible audience, which includes almost 21.5 million subscribers;

second, it consistently expresses the will and aspirations of the masses of trade union members and working people, not only voicing their social interests, but safeguarding them as well; and

third, our common newspaper, in the spirit of the founding declaration of the General Trade Union Confederation, serves to unite the people and is open to a constructive dialogue with any social movement and trade union which is, for whatever reason, not a member of the confederation. The newspaper is dependent on no state executive entity, party or political organization. It serves, and will strive to serve more effectively, legitimate interests of the working man.

We would like to add one more thing. It is true that the newspaper is always in debt to its readers. Our editorial office and journalists know that readers are placing great hopes on them, given the growing pains of the emerging new, free and powerful trade unions. But the old trade unions and their leaders in many respects have a debt to repay to the newspaper (and therefore to its subscribers), to say the least. For instance, in the past 12 years alone, our newspaper, the most profitable in the country, gave up a total of R592 million of its profits: some R390 million to the trade union budget, some R150 million to the state and almost R50 million for the construction of party printing shops. But those who lorded over this publication spent virtually nothing on printing facilities for TRUD and other union publications, and on providing social benefits to the collective.

This is why the documents of the recently held congress included this concerned request, even demand, to the council of the confederation: in a very near future (the draft had requested it to be 3-to-4 years), to build printing facilities for trade union newspapers and magazines.

Let us cling to our hopes, dear readers. Let us fight.

The congress asked the council of the confederation as the publisher of the newspaper and the editorial collective to review other issues related to the overhaul of TRUD's status.

TRUD is your newspaper and your voice. In the complex and difficult situation of the shift to a market economy the newspaper will strive to be not only your advisor and guide but a reliable supporter through all the trials.

Subscribe to TRUD, and we will share joys and sorrows. Together, we will seek and find solutions to complex social problems without retreating before difficulties and serving the truth, and nothing but the truth.

Subscribe, dear friends, to your own newspaper. Only a few more days remain: the subscription campaign has been expended until November 15. The subscription price has risen, but not as much as on other publications. It is now R13.80 for the entire next year, which promises to be a stormy one; R6.90 for 6 months and R3.45 for 3 months. TRUD's subscription index is 50130.

RSFSR Draft Pension Figures Listed

914F0027A Moscow TRUD in Russian 28 Oct 90 p 2

[Article by V. Yudin, USSR people's deputy: "What Should the Russian Pension Be Like?"]

[Text] Dear people's deputies of Russia! I decided to turn to you with this letter, since I must share my doubts regarding the draft law entitled "State Pensions in the RSFSR."

I will not discuss a number of inaccuracies in the materials which apply to the draft and where it is compared with the law entitled "Pension Support for Citizens in the USSR," adopted on 15 May 1990. I will pause to discuss only one aspect, without which it is impossible to examine the question further. For example, they maintain, including the republic's people's deputy M. Zakharov, that supposedly the union legislation is oriented towards a minimal pension of 70 rubles. But this is not so! The law reads as follows: "The minimal amount of pension according to age is established in the amount of 100 percent of the minimum wage." And, as is well known, the question concerning the size of the minimum wage is presently being resolved in the program for converting over to the market economy.

Since a comparison of the articles of the laws is possible and permissible only under differing initial conditions, we will consider the minimal pension to be equal to 100 rubles both in the RSFSR draft and in the USSR law. And now, using specific examples, let us examine how the articles of both documents affect the pension amounts.

Pension Amounts for Males Depending Upon Earnings and Length of Service. Central Regions of the Country

Earnings	100	150	182	200	400	480	545	600	800	1000
Pension for 25 years of service:										
USSR law	100	100	100	110	220	257	284	305	357	379
RSFSR draft law	100	100	100	110	220	264	300	300	300	300
Increments for 20 years length of service:										
USSR law	20	30	36	40	80	93	103	111	130	138
RSFSR draft law	20	20	20	40	80	96	60	60	60	60
Full maximum pension:										
USSR law	120	130	136	150	300	350	387	416	487	517
RSFSR draft law	120	120	120	150	300	360	360	360	360	360

It is apparent from the table that, while making no changes for those whose earnings range from 182 to 400 rubles and providing considerable advantages for those whose earnings reach 400-545 rubles, the draft, compared to the USSR law, reduces the full pension for earnings lower than 182 rubles (up to 16 rubles or by 12 percent). But the interests of those whose earnings are in excess of 545 rubles are infringed upon in particular. Indeed, such raised wages are received by those who are engaged in heavy physical or skilled mental work. This group includes residents of the North and Far East, the pensions of which will decline to an even greater degree.

There are those who will maintain that the union pensions of 379 rubles for the center of Russia and 568 rubles for Chukotka are rather large. But, first of all, such pensions will become available only beginning in the middle of 1993 and for earnings of 1,000 and 1,500 rubles respectively and, secondly, the mentioned pensions conform to the insurance payment from these earnings.

For a considerable group of workers, an additional length of service will not bring forth a proportional increase in the pension. The additional payment for length of service authorized by Article 18 of the draft, amounting to 60 rubles (20 percent of the maximum pension), for earnings of 600 rubles, can be earned for 10 years of service (Article 16).

In summarizing the results, the conclusion can be drawn that one of the principal tasks—establishing the dependence of the pension amount upon the amount of earnings and length of service—is being resolved only for a small group of persons whose earnings change within the limits of 182 and 480 rubles. When we consider that in addition a number of benefits for agricultural workers and workers in the northern and eastern regions are for all practical purposes abolished in the draft, that a uniform method for computing and recalculating pensions is lacking and that many of the articles were formulated in a careless manner, then it becomes obvious that the document requires serious corrections.

Certainly, there also are serious shortcomings in the USSR law—for example, the large number of benefits

and exclusions, the impossibility of linking the pension amount to the earnings for the entire period of labor activity and others. However, it was adopted not only by the Supreme Soviet but also by society. It is already in operation (the pensions for participants in the Great Patriotic War were raised commencing 1 October). Should the new draft, which also is far from perfection and has not been discussed either publicly or extensively, be placed in opposition to it?

It seems to me that a more logical approach would be to improve the Russian law by touching up the union one and supplementing it with statutes which describe the peculiarities of the RSFSR. The document would be smaller, simpler and more understandable and would not summon forth a new wave of social tension.

Uzbek Enterprises Face Specialist Shortages

914F0041A Tashkent SELSKAYA PRAVDA in Russian
14 Oct 90 p 2

[Interview with A. Khristich by M. Kim, Uzbek Wire Service correspondent: "Shortage of Personnel—Shortage of Goods? The Republic Has a Severe Unemployment Problem, But the Once 'Closed' Enterprises Have a Catastrophic Shortage of Qualified Specialists"]

[text] It is already clear that conversion [from military to civilian production] has failed to yield the expected effect but has nonetheless revealed a whole series of problems. And staffing is one of them. Where, for example, are the complex household appliances and radio electronics to come from if there is no one to produce them?

M. Kim, an Uzbek Wire Service correspondent, and A. Khristich, chief engineer of the Foton [Photon] Production Association, discuss the industry's problems and its development prospects.

[Kim] Anatoly Nikolayevich, the groundswell of delighted exclamations over the conversion of a number of defense-industry enterprises to civilian production is

past. But instead of an abundance of refrigerators, television sets and washing machines, we have empty store shelves. Where are the goods?

[Khristich] Our association, which is one of the largest not just in the republic but in the country as a whole, develops and produces electronics products—diodes, transistors, integrated circuits, voltage rectifiers. They are widely used in radioelectronic and television equipment for household, production and technical uses, and in computers, automotive electronics and means of communication. At present we have about 10,000 contracts with more than 3,000 customers. About 10-12 percent of our output goes to the republic, the rest is shipped throughout the entire country.

There's no need to repeat here what importance the electronics industry has for the development of the national economy. I would merely point out that one of the distinguishing features of such enterprises is a high growth rate (by and large, output increases by 50 to 150 percent in a five-year period) and that the technology is unique and necessarily requires the utilization of achievements in the areas of physics and chemistry. That presupposes the use of superpure gases and materials, high-precision instruments, computers and telemechanics.

These specific features of production make necessary a particularly rigorous selection of workers and engineers. We require specialists with good technical and professional training in radioelectronics, physics and computer science. And they are precisely the people we lack.

The question of recruiting young employees is one of particular urgency—the need for such employees is being met by less than half. The higher educational institutions of the republic's capital city supply the association with representatives of only eight specialties, while we need engineers with training in 13 different areas. If we wish to ensure the further development of electronics in Uzbekistan, we must concern ourselves today with the people who will be called on to accomplish the difficult tasks of tomorrow. We must spare neither effort nor money in this regard.

[Kim] But in this matter, as they say, you hold all the cards. Clearly the management of Foton knows best how many of what specialists it needs.

[Khristich] Two years ago we were able to cover the existing shortage by hiring graduates of Moscow, Leningrad and Novosibirsk higher educational institutions. They were given accommodations in dormitories and temporary residence permits. That made sense, since their level of training was rather high. At the same time, the graduates of local higher educational institutions, in whom we had placed great hopes, failed to justify those hopes. For example, the majority of the graduates of

republic higher educational institutions are not working in their specialty. There are many reasons for this, but the fact remains that we're short of people. The upshot of this can readily be seen from the example of the Kamalak Plant in Sovetabad. This year, because of the shortage of specialists, that plant cut back by 20 percent its production of voltage rectifiers—products that the country needs. Without that part, not a single color television will operate.

For several years now the association has been collaborating with the principal department at the Tashkent Polytechnical Institute and has been lending it practical assistance with equipment and with the outfitting of teaching labs. In addition, its students get practical production experience directly in Foton's shops, beginning with their first year. We take note of the promising students and pay them factory stipends beginning with their second year. But what do we get for our trouble?

In 1988 we requested 145 specialists, but only 41 responded. Of those, only 26 are working for us today. An even worse situation developed last year and this.

The plan for 1990-1995 stipulates a need for additional employees in the "semiconductor-based and microelectronic instruments" specialty. We need at least 50 such specialists. And suddenly we've learned that admissions for training in that specialty have been cut by 50 percent by order of the rector of the Tashkent Polytechnical Institute. Admission to the institute was denied to the applicants sponsored by the enterprise in the framework of the agreement on special-purpose training. What's the result? The old specialists are leaving, and there's no one to replace them. It's not a very happy prospect.

[Kim] Since there's such a squeeze on personnel, why not bring them in from the outside, the way you did before?

[Khristich] A resolution of the Tashkent City Soviet that was adopted two years ago stipulates that for every out-of-towner hired (including graduates of higher educational institutions, technicums and vocational-technical schools) the enterprise has to pay more than 16,000 rubles from its fund for social development. Let's leave aside all question of the extent to which that decision is democratic—after all, it essentially violates people's right to choose their place of work. And we simply find ourselves backed into a corner, since we are faced with the question of whether to invest in housing, which is in critically short supply, or in residence permits for new hires. The Oniks [Onyx] Association and the Zenit [Zenith] and Algoritm [Algorhythm] plants find themselves in an equally difficult position.

We have raised this question repeatedly and argued our viewpoint to various authorities. Unfortunately, the instruction has carried the day once again.

CIVIL AVIATION

Moscow Airport Development, Control Examined

914H0013A Moscow VOZDUSHNYY TRANSPORT
in Russian 29 Sep 90 p 2

[Interview with S. Stankevich, first deputy chairman of the Moscow Soviet, by VOZDUSHNYY TRANSPORT correspondent V. Tseyukov: "The Airports Should Be Developed as a Complex"]

[Text] *It has long been common knowledge that many of our airports are in disastrous condition. Airports are barely coping with the constantly increasing workload because they lack the capacities needed. And as a result, there is crowding, confusion, and irritability.*

Sometimes even elementary things are lacking. It is not that the "inert" passenger waiting for a departure should take a rest—at times there is no place to sit down. And so many persons must be squeezed into stifling, poorly equipped storage areas.

Airport service has lagged far behind world standards as well. Even having lunch at an air terminal snack bar becomes an insoluble problem.

The largest airports in the country, such as Sheremetyevo, Vnukovo, and Domodedovo, have not been avoiding these many problems, either. What can they expect tomorrow? Will they become cleaner, more comfortable and spacious?

Our correspondent V. Tseyukov put these questions to S. Stankevich, the first deputy chairman of the Moscow Soviet, at a recent press conference devoted to the most pressing problems in the city of many millions.

[Tseyukov] Sergey Borisovich, I have heard that the Moscow Soviet adopted the decision to take all the capital's large airports under its wing. Tell us what prospects this holds in store for them.

[Stankevich] The Moscow Soviet is actually conducting negotiations on this. With the collectives of the four airports on one side, and with the Ministry of Civil Aviation on the other side. A bilateral commission has been formed which is headed by the cochairmen—one from the Moscow Soviet Ispolkom, and the other from the Ministry of Civil Aviation. In the course of a month—but there are less than three weeks remaining—it will prepare all the documents necessary for reorganization of the four airports: Vnukovo, Domodedovo, Sheremetyevo-1 and Sheremetyevo-2.

Questions about the use of certain military airports near Moscow are being examined at the same time. We want to reequip them for the needs of civil aviation, and thereby provide the opportunity for the Soviet airlines being created today to begin utilizing Aeroflot air routes.

It is too early to speak about the final results of the negotiations now; let us wait another three weeks.

[Tseyukov] You have visited all Moscow's airports on an "inspection." What did you see there, and what did you try to devote your attention to first of all?

[Stankevich] It struck me that our airports are not convenient for everyone: the passengers, who are continually subjected to major and minor discomforts, the pilots, the aviation technicians, and so forth. Their "service life" has been exhausted to a considerable degree. The airports are being "bogged down" and at the same time, they have no prospects whatsoever for development.

Unless the necessary land is allocated, warehouse facilities are developed, and a social program is developed in time, it will continue this way forever. I am not speaking about payment for the land which is being put into use at the beginning of next year, and it is well known that an airport occupies a large amount of space, but about the taxes and about the organization of service...

[Tseyukov] So it turns out that the future of the airports is inseparably linked with the city?

[Stankevich] Yes, Moscow's airports should be developed as a complex; they should supplement each other somehow and compete with each other in some way.

In the overwhelming majority of countries, especially in the very large cities, the airports are municipal property and are developed with the help of the municipalities. A city sees them as one of the sources of its income and is vitally interested in ensuring that the airports "prosper"—and by and large this is what happens.

It is as if the airports in our country have been torn away from the cities, although they form an integral part of city features. The situation can be saved only if they are transferred to municipal ownership. There is hope for this, of course, when there is good will and common sense on both sides.

Sheremetyevo Operations, Problems Highlighted

914H0004A Moscow SOYUZ in Russian No 38, Sep 90
p 15

[Interview with Honored Pilot of the USSR V. Ya. Potemkin, general director of the TsU MVS [International Air Services Central Administration], by SOYUZ correspondent Viktor Belikov: "Sheremetyevo Airport Steps Into its Fourth Decade"]

[Text] *Sheremetyevo Airport has entered the fourth decade of its existence. The anniversary was marked in a businesslike manner: the representatives of over 30 foreign airlines whose aircraft fly to Moscow and a group of journalists in the capital were introduced to the new general director of the International Air Services Central Administration (TsU MVS), Honored Pilot of the USSR V. Potemkin, who is interviewed by a SOYUZ correspondent.*

[Belikov] Vladimir Yakovlevich, Sheremetyevo is rightly considered the country's main international airport, but it is not one airport—it is really two, after all.

[Potemkin] Correct, both of them—the international and the domestic one, as well as the cargo complex—are under the authority of the TsU MVS. Every year over 5 million passengers and 150,000 tons of cargo depart from here. Since the start of this year, for example, over 3 million travelers departed for 100 countries from here. I began with these figures because they attest to our main problem—the overloading of the Sheremetyevo-2 air terminal, which was put into operation just 11 years ago, was doubled and even tripled by the Moscow Olympics.

It appeared at that time that its throughput capacity was 2,100 persons per hour, enough to last until the end of the century. All the estimates were overturned by the sharp expansion of relations between our country and the rest of the world and the increase in personal contacts between hundreds of thousands of Soviet people and foreigners over the past 3 or 4 years. An even greater increase in the number of visits here and trips abroad lies ahead. We are already preparing for this now by trying to "undo" the worst bottlenecks in the shortest possible time.

[Belikov] What is being done for this?

[Potemkin] I can tell you about the intention to establish a joint venture with a group of West German companies and banks to renovate the air terminal complex at Sheremetyevo-1. The project, which costs 800 million marks, is planned for the 1990-1994 period, but its initial results will be seen in several months.

The first stage in its renovation and partial expansion will take place without interrupting operation of the existing terminal for passengers on domestic air routes. This will make it possible to begin serving the flights of 10 foreign airlines here in 1991. An air terminal with throughput capacity of 500 persons per hour will be of great help to Sheremetyevo-2, which is overloaded to the limit. The first section of the new cargo complex begins operating at the same time.

The second stage of the Sheremetyevo-1 renovation is on a larger scale. There will be one more air terminal (1,200 persons per hour), the new cargo complex will be operating at full capacity at 500 tons per day, and a repair base for air terminal machinery will be put into operation. Erection of a first-class 700-room hotel with a full range of services to meet world standards will be completed. Incidentally, one of the main objectives in establishing the joint venture was the opportunity to acquire the latest technologies and types of service to serve the air passengers, which is the practice of the world's leading airlines. Otherwise, Aeroflot will not be able to compete with them as an equal on international flights.

[Belikov] I recall that this was discussed a year ago when the Ministry of Civil Aviation managers were substantiating the advisability of leasing five West European A-310 airbuses. You should be receiving them next fall. Are you prepared?

[Potemkin] At full speed! Eight of our crews are completing a course on theoretical preparation and familiarity with the aircraft they will be flying at the training center located in Toronto. Negotiations are under way with one of the foreign airlines on the possibility of utilizing these crews for temporary assignment under contract.

At the same time, intensive training is being provided for the technical personnel who will be maintaining the A-310, and a flight attendant service of 1,800 persons is being readied. We plan to use the A-310 on the most popular transcontinental routes and obtain the maximum economic gain from operation of the leased aircraft.

[Belikov] Obviously even five very good airliners will not solve your problems with the shortage of aircraft for international flights.

[Potemkin] Indeed, the condition of the aircraft fleet is worse than ever before. The new Il-96 and Tu-204 promised by the aviation industry at the end of the current five-year plan will make their appearance no sooner than another year or a year and a half, judging from everything. The failures of equipment on the Il-86, Il-62, and Tu-154 aircraft we are using, which have led to delays or cancellations of flights, have doubled over the past 6 months! The quality of engines manufactured and repaired by the MAP [Ministry of the Aviation Industry] and civil aviation enterprises has deteriorated appreciably. Since the beginning of this year, for example, 36 aircraft engines have had to be taken out of operation ahead of schedule. The lack of aircraft and reliable engines is the main reason why we cannot increase the number of flights and put an end to the lines for air tickets that keep getting longer. A partial solution to the situation that has developed may be to install very efficient engines made in the West on the wide-bodied Il-86 aircraft. This will raise their productivity significantly and make it possible to earn funds at the same time to pay for the American engines. But a 350-seat airliner must not remain useless on the ground when thousands of people cannot make official or personal flights abroad for months!

[Belikov] In recent years, the Sheremetyevo air terminals, especially the international sector, have acquired a bad reputation as one of the areas of Moscow with a high crime rate. How do you plan to put things in order "on the ground?"

[Potemkin] The large concentration of persons departing or arriving from abroad, including quite a few foreigners who are well off, attracts foreign currency speculators, black-marketeers, profiteers, and other "specialists" in criminal activity. This is a consequence of the generally

poor state of law and order in the capital. We consider our first responsibility to be the quickest possible service for passengers when an aircraft departs or after it arrives. The less time that people spend filling out travel documents, in a customs examination, and receiving their baggage, the better. When the flight schedules are made up, we will try to distribute them more uniformly during the day to avoid the crowd buildup during landings and arrivals.

We have been alerted lately by the inclination of criminal elements to organize what are really nighttime raids for the purpose of robbery in the halls of the air terminal and the hotel for transit passengers, as well as attempts to break into the restricted zone where the foreign currency stores are located. Taking into account the heavy workload of militia employees on duty in Sheremetyevo-2, we have provided additional payment for them. We have also had to limit free access to the air terminal building for everyone, following the generally accepted practice at international airports.

There have been cases in which a passenger departing for Vietnam, let us say, is seen off by five or 10 fellow countrymen "helping" to break through the customs examination with hundreds of kilograms of baggage that is not registered properly. Incidentally, we are thinking about solving the problem of registering flights to Hanoi, as well as other directions in which there is a steady flow of departing passengers, by setting aside individual facilities or pavilions to conduct all the necessary technical operations and document registration there.

The safety of passengers' baggage continues to be a source of alarm and concern; cases of damage incurred during loading and unloading, and simply theft of valuable items by airport employees, have become more frequent. Monitoring of the baggage handling area has been toughened now, additional technical devices have been installed, and patrolling by mobile groups of militia employees, VOKhR [militarized guards], and border guards has been introduced. Aeroflot employees have been assigned personal responsibility in all stages of baggage and cargo movement.

I think an effective measure to stop the unabated wave of thefts would be to shift to a contract arrangement when materially responsible persons are accepted for employment. Such a procedure is now being worked out in coordination with the USSR Goskomtrud [State Committee for Labor and Social Problems]. It will enable us to make those who do not have clean hands more strictly responsible and to get rid of them more quickly when their involvement in the loss of items from baggage is clearly revealed.

Beginning on 1 October, compensation to our passengers for the loss of their baggage is being increased. If this takes place on an Aeroflot route abroad, the compensation will be 50 rubles for each kilogram of weight of undeclared value. If a passenger arriving at Sheremetyevo-2 has baggage lost, the compensation will be

doubled—to 100 rubles for each kilogram lost. Foreigners in our country and abroad will receive 20 U. S. dollars or 100 rubles for each kilogram of baggage lost.

The funds to pay for these losses will be taken from part of the profit acquired by the labor collective for socioeconomic development. Careless work will be turned against you yourself and your comrades.

Tajik Aviation Official on Local Operations, Changes

914H0034A Dushanbe KOMMUNIST
TADZHIKISTANA in Russian 18 Oct 90 p 3

[Interview with Yu. I. Gerasimov, first deputy chief of the Tajik Administration of Civil Aviation, by VOZDUSHNYY TRANSPORT correspondent A. Larenok, especially for KOMMUNIST TADZHIKISTANA: "Rumors and Facts About the Kulyab Airport"]

[Text] The Tajik Administration of Civil Aviation, which made the transition to a lease relationship with the USSR Ministry of Civil Aviation on 1 April last year (the first in the sector, incidentally), has come to Aeroflot's front ranks in practically all indicators. The administration's collective is doing a great deal to better meet the public demand for air service, although it is not easy to accomplish this when there is a critical shortage of aviation fuel.

Flights in An-2 aircraft have been practically discontinued today, which is naturally leading to criticism. Voices are being heard which allege that someone is doing this deliberately. The rumors are agitating public opinion. In Kulyab Oblast, for example, there is talk that the administration has cut off the delivery of gasoline and scurrying local air routes. Heated debates at meetings have flared up on the decision to reorganize the Kulyab Unified Air Squadron into the Kulyab Airport, which supposedly will lead to a cutback of 140 aviation workers, and so forth.

To what extent does this correspond to reality? Yu. Gerasimov, first deputy chief of the Tajik Administration of Civil Aviation, responds to a correspondent's questions on this and other matters.

[Gerasimov] In any situation, especially in the current unstable situation, any rumors are especially dangerous, and they must be decisively repulsed. Unfortunately, they are being spread by rumormongers, and even slander is being spread by certain mass media. Does this contribute to stabilization of the current situation in Tajikistan and strengthen interethnic relationships? Of course not. But everything in turn.

With regard to the gasoline, KOMMUNIST TADZHIKISTANA has already reported this. It has to be repeated. We obtain aviation gasoline, which the An-2 uses, from Krasnovodsk. Since deliveries of fuel from there have been practically discontinued, flights on local air routes in this type of aircraft have also been stopped. The people in Krasnovodsk have abrogated the contract

unilaterally, and we naturally have appealed to the Gosarbitrazh [State Board of Arbitration] for help. But this does not make things easier for us or the passengers. But in the meantime, Yak-40 and An-28 aircraft, which use aviation kerosene, are flying wherever there are runways with a paved surface.

And once again the question of the need to build paved runways arises. Unfortunately, this problem is being resolved extremely slowly, but it is within the competence of local soviet organs. Leninabad Oblast is an exception: airports have been opened in Ura-Tyube, Kanibadam, and Asht in just the current 5-year period.

[Larenok] Yuriy Ilich, a disturbing letter was recently sent to K. M. Makhkamov, chairman of the Tajik SSR Supreme Soviet. It states in particular that the TUGA [Tajik Administration of Civil Aviation] decision to abolish the Kulyab Unified Air Squadron attests to its disregard for requests from oblast workers to improve service to the mountainous areas. Moreover, the letter emphasizes, this step will involve the dismissal of many aviation workers and the closure of air routes.

[Gerasimov] First of all, there is no discussion of abolishing the Kulyab Air Squadron. This concerns its reorganization into the Kulyab Airport with retention of practically all subunits and services. Incidentally, this is not being done at the administration's instruction, but at the initiative of the Kulyab aviation workers themselves.

A letter to Yu. Korenevskiy, chief of the Tajik Administration of Civil Aviation, signed by S. Ilyashenko, commander of the Kulyab OAE [Unified Air Squadron]; K. Razitdinov, chairman of the STK [labor collective council]; and S. Tabarov, chairman of the trade union committee, states: "In connection with the departure of flight and technical personnel from Kulyab... and the shortage of specialists, we propose that the KOAE [Kulyab Unified Air Squadron] be reorganized into the Kulyab Airport." This is first of all.

Secondly, the reorganization does not entail a cutback in cockpit personnel. Moreover, about another 20 specialists will be required here by the end of the year. And third and finally. There can be no discussion of closing local air routes. The demand for air service will begin to be met at the previous volume, and in larger volume in the future. The remaining 10 to 12 An-2 crews, which have been formed into a flight instead of the current squadron, will begin flying on local air routes in Kulyab Oblast. Flights from Dushanbe to Kulyab, as well as to airports with paved runways, will be left for the Yak-40 and An-28 crews based in Dushanbe.

[Larenok] Reorganization of the unified squadron into an airport is not taking place just because of the outflow of specialists?..

[Gerasimov] Of course not! I will say frankly—it is because of dire necessity, resulting from the shift to market relationships. There are four aviation enterprises

in the Tajik Administration today—the Dushanbe, Leninabad, Kurgan-Tyube, and Kulyab enterprises. The last two are unprofitable. This year, for example, the Kulyab Aviation Enterprise will incur losses of about two million rubles. The Kurgan-Tyube Aviation Enterprise anticipates the same losses. Calculations show that reorganization will put the Kulyab Airport into the profitable category. The earnings of all aviation specialists will be saved as well. In a word, economic considerations form the basis of the step that is being taken.

[Larenok] Yuriy Ilich, in an appeal to the Tajik SSR Supreme Soviet and Council of Ministers, delegates to the 25th Komsomol Congress from Kulyab Oblast state that other oblast centers have Yak-40 aircraft, but there are none in Kulyab. This appeal also suggests that flights be made on the Kulyab-Bukhara, Kulyab-Samarkand, and other routes. It is a good idea, isn't it?

[Gerasimov] Wherever the discussion concerns the economy, emotions, and especially ambitions, vary a great deal. At one time, when they began sending An-28 aircraft to us from Poland, it was suggested that they be stationed in Kulyab as well. But what happened? In connection with the sharp increase in prices (the cost of an An-28 is now 1.8 million rubles), we were forced to turn down the acquisition of these aircraft. Half of the ones we have are idle because they lack engines. The decision has now been made to manufacture these aircraft in the USSR. But it is hard to say when this will take place.

Is it necessary for every aviation enterprise to have all types of aircraft, especially in our small republic? I don't think so. On the contrary, concentration of the fleet of airplanes and helicopters and development of a strong technical base, not its dispersion—this is the most efficient way of developing air transport under the conditions of market relationships.

As far as flights from Kulyab outside the borders of Tajikistan are concerned, this is a matter for the future. Not only our administration, but the entire sector as a whole, is failing to meet 25 to 30 percent of the public demand for air service at present. This problem will be resolved when we receive new and more efficient equipment.

[Larenok] Yuriy Ilich, people in the oblast are talking about the failure to make use of opportunities to ship vegetables and fruits by air, saying that a route for heavy aircraft should be opened to the airport, and saying that the transshipment of vitamin-rich produce involves heavy losses. What are the prospects here?

[Gerasimov] I fully sympathize with the oblast farmers who raised a wonderful crop of grapes, melons, and other produce and are unable to get them to the consumer. But let us approach the solution of the problem competently.

Of the heavy aircraft, the Kulyab Airport runway can accommodate only the An-26, which carries 4 tons. The flight radius of this aircraft is insignificant. In order to

get to Novosibirsk, it will have to make two intermediate landings en route. Is this profitable or not? What will the transportation expenses be? Let us figure them out if necessary. But no one has come to us with such a proposal.

As far as the Il-76, which can carry up to 40 tons of cargo, is concerned, we need another runway almost twice as long and considerably wider. It will take 10 million rubles to build such a runway. Let us assume that the Kulyab Airport will handle 50 such aircraft in a year. The amortization deductions will be on the order of a million rubles annually. Is the oblast, and even the republic, able to cope with this today? I don't think so.

We went to Kulyab recently with a group of specialists. We met with the chairman of the oblast ispolkom, the first secretary of the party obkom, and the collective of aviation workers. I think we reached complete understanding with each other. And the Tajik Administration of Civil Aviation will do everything possible to resolve the threefold problem which is concerning the oblast public. That is, to provide flights on local air routes, to appear on the national air routes in due course, and to ship the fruits and vegetables.

[Larenok] Thank you for the discussion.

Yak-42 M-Series Profiled

914H0031A Moscow GRAZHDANSKAYA AVIATSIYA
in Russian No 9, Sep 90 pp 16-19

[Article by V. G. Dmitriyev, deputy chief designer, OKB [Experimental Design Bureau] imeni A. S. Yakovlev, and candidate of technical sciences: "The Yak-42M: A Short-Range Mainline Aircraft"]

[Text]

Basic Features

One of the most important practical objectives of aircraft manufacturers at present is to improve the technical refinement, flight safety, and technical and economic efficiency of mainline passenger aircraft. Taking into account the modern approach in designing passenger aircraft throughout the world, the collective of the OKB imeni A. S. Yakovlev has developed a family of short-range mainline aircraft consisting of the Yak-42, Yak-42M, and Yak-46 from the base version and its modifications.

Research was conducted first on the effect of design range and passenger capacity on the technical and economic efficiency of the Yak-42. It showed that, with respect to the fuel efficiency per unit of transport work

and transport production cost, the most efficient values for the range and passenger capacity are between 2,300 and 2,700 kilometers and 140 and 170 passengers, respectively. It should also be noted that these values for the prospective short-range mainline aircraft needed by Aeroflot will also meet the demand in the international market and ensure competitiveness with similar foreign aircraft up to the year 2000.

In conformity with requirements of the Ministry of Civil Aviation's technical specifications approved in January 1990 and experience in designing and operating the Yak-42 aircraft (as well as aircraft market conditions), a modification of this series aircraft—the Yak-42M—was developed. Promising scientific and technical solutions in the areas of aerodynamics, engine manufacturing, development of equipment and automated control systems, and production technology were extensively utilized in its design. The new passenger aircraft is designed to carry 150 to 168 passengers on routes of up to 3,500 kilometers at a speed of 800 to 830 kilometers per hour.

The principal base version of the Yak-42M is the version configured for 156 passenger seats with the level of passenger service established in Aeroflot for short-range mainline aircraft. In accordance with the technical assignment, a version with a higher level of service was worked out as well—a galley for hot food was included. The configuration provides for 150 passenger seats.

The technical indicators of the Yak-42M are considerably superior to the series Yak-42: the fuel efficiency is 35 to 40 percent better and the transport production cost is 20 to 25 percent better. In its fuel economy, range, and maximum payload, the Yak-42M will come up to the level of the best modified foreign aircraft, such as the Boeing 737-300, the Boeing 737-500, and the McDonnell Douglas MD-87. Its fuel consumption per passenger-kilometer will be no more than 20 to 21 grams.

The lead institute, the GosNII GA [State Civil Aviation Scientific Research Institute], and the Economics, Planning, and Management Institute of the Ministry of the Aviation Industry have assessed the possible fuel economy for the different versions of passenger aircraft in the fleet in handling the prospective transport volume over the period from 1986 to the year 2010. The results of the calculations made demonstrate the economic expediency of developing the Yak-42M, since this will make it possible to reduce the fuel consumption per unit of transport work. Use of the Yak-42M in Aeroflot operations up to the year 2010 will make it possible to obtain an absolute fuel economy of about 2.5 million tons.

Performance Characteristics of Short-Range Mainline Aircraft

Parameters	Unit of Measurement	Aircraft					
		Yak-42M (1989 Specifications)	Yak-42M (Base Version)	Yak-42M (150-Seat Version)	Yak-42D	Boeing 737-300	Boeing 737-500
Takeoff mass	tons	—	63	63.5	56.5	56.47	52.39
Engines		D-436M	D-436M	D-436M	D-36	CFM-56-3	CFM-56-3
Takeoff thrust	tons-force	3 X 7.5	3 X 7.5	3 X 7.5	3 X 6.5	2 X 9.07	2 X 9.07
Specific cruise fuel consumption	kilograms per kilogram-hour	0.63 ¹	0.66 ¹	0.66 ¹	0.7 ²	0.68 ³	0.68 ³
Thrust-to-weight ratio	—	—	0.346	0.346	0.345	0.321	0.346
Wing area	square meters	—	120	120	150	91	91
Fuselage diameter	meters	—	3.8	3.8	3.8	3.8	3.8
Number of passengers	—	156	156	150	120	141	132
Mass of equipped aircraft	tons	—	37	38.5	33.7	31.63	30.96
Maximum payload	tons	16.5	16.5	16.5	13	16.03	14.5
Normal payload	tons	14.82	14.82	14.25	10.5	12.8	11.972
Payload with maximum fuel supply	tons	—	9.6	8.6	4.6	8.65	5.24
Cruising altitude	kilometers	11.1 - 11.6	11.1 - 11.6	11.1 - 11.6	9.1	9.6 - 10.7	9.6 - 10.7
Cruising speed	kilometers per hour	800	800	800	750	795	795
Operational range:	kilometers						
with maximum payload		1,850	1,850	1,500	1,480	1,760	1,250
with normal payload		2,500	2,500	2,300	2,150	2,960	2,300
with maximum fuel		4,500	4,500	4,320	3,800	4,620	5,150
Mass of equipped aircraft per passenger	kilograms per passenger	—	237.1	253.3	280.8	224.3	234.5
Fuel consumption per passenger-kilometer	grams per passenger-kilometer	21	21	22	33.4	21	21.1
Runway length required	meters	2,200	2,200	2,200	2,200	2,400	2,100
Year operation begun		—	1994	1994	1988	1984	1990

1. When altitude N = 11 kilometers and speed M [Mach] = 0.75

2. When altitude N = 8 kilometers and speed M = 0.7

3. When altitude N = 10.7 kilometers and speed M = 0.75

Design Features

The Yak-42M has a high aspect-ratio wing. The wing area is 120 square meters, the sweepback at the quarter-chord line is 25 degrees, the aspect ratio is 10.5, and the taper ratio is 3.5. The advanced supercritical profiles, developed jointly with the TsAGI [Central Aerohydrodynamics Institute imeni Zhukovskiy], provide for a high level of aerodynamic efficiency (the maximum lift-to-drag ratio is up to 18).

The aircraft is equipped with the highly economical D-436M turbofan engines. They are a further development of the original D-36 design. The takeoff thrust of the D-436M has been increased to 7,500 kilograms-force. The engine's specific fuel consumption in cruise mode on the test stand (at an assumed altitude of 11,000 meters when the cruise Mach number equals 0.75) does not exceed 0.63 kilograms per kilogram-force of thrust per hour. The D-436M engine is equipped with a thrust reversal unit. The new engine is notable for its low noise level.

The digital flight control and navigation complex of the Yak-42M aircraft (the TsPNK-42M) makes it possible to fly under instrument flight rules on both domestic and international routes and adhere to current and prospective separation standards. The new complex was developed on the basis of advanced radio communications equipment, and colored cathode-ray tubes are used in the display system. The flight control and navigation complex of the Yak-42M has been standardized with similar equipment complexes on the Il-114 and Tu-204 aircraft. It provides for an automatic approach and automatic landing under ICAO [International Civil Aviation Organization] Category III minimums, which extends the operating capabilities of the aircraft considerably. The equipment complex makes it possible to optimize the flight mode and the engines' operation automatically (through the on-board computer), and it provides for automatic navigation over any of 70 pre-programmed routes, including airport traffic zones, with an assigned time of arrival according to schedule.

The remote control system is electrical, with quadruple redundancy. It provides for the required features of stability and controllability, as well as automatic trim and damping on three channels in all flight regimes. A high degree of reliability and flight safety is achieved through the appropriate level of reliability in the control system and by limiting the chance that the aircraft will exceed the flight regime thresholds (for example, the angle of attack, the bank angle, normal G-load, and the like). Self-contained control drives are used in the Yak-42M control system, which make it possible to reduce the mass of the hydraulic system by decreasing its relative capacity and allow for high speed in moving the control elements. In order to improve passenger comfort and reduce fatigue in the Yak-42M, it is planned to make use of an active damping system to decrease the loads when flying in turbulence.

The fuselage of the Yak-42M has been extended 4.62 meters longer than the Yak-42 with two inserts. This has made it possible to increase the number of passenger seats. The passenger cabin is equipped with modern unitized seats installed 780 millimeters apart. There are shelves over the seats for carry-on baggage and compartments have been provided for coats.

Baggage and cargo may be carried in containers or without them. A ramp has been installed in the tail section of the fuselage. The dimensions of the left entry door have been increased to 850 by 1,830 millimeters for seating passengers through telescopic airport galleries or ground ramps.

The Yak-42M was designed in accordance with the concept of small static longitudinal stability margins in cruise modes (the stability coefficient lies within the range of 0.05 to 0.07). The aircraft has a new horizontal tail with a high aspect ratio (aspect ratio is 5.6 and taper ratio is 0.8) and a trim tank in the vertical stabilizer.

The cockpit of the Yak-42M meets the technical requirements for prospective mainline aircraft from 1995 to the year 2000 (the A-320, Boeing 737, and others). The layout takes into account the requirements for an efficiently organized ergonomic system and provides for this organization at the pilots' positions; through efficient utilization of the equipment installed, especially the complex of systems to display data and the control elements, the crew's workload is reduced considerably. In particular, the use of multifunction screen displays in the instrument panel makes it possible to change the volume of data provided according to the stages of flight and to regulate it in such a way that it does not exceed the pilot's ability to interpret and process the data. The complex of equipment on the aircraft, combined with the electric remote control system and the automated monitoring system that has been built in, provides for safe operation with a crew of two pilots. At the same time, a position has been provided in the cockpit for a third crew member facing the central control panel.

Technical Maintenance

The system for maintenance and repair should provide the aircraft with a service life of 60,000 flying hours (until it is written off) and rule out preventive maintenance. The maintenance regulations have been based on the principle of operation in accordance with condition: this means higher indicators of reliability and durability, as well as high monitoring capability in the on-board systems. The aircraft is prepared for flight by a series of auxiliary operations (OV, VS, OS [expansions unknown]) and forms of operational maintenance (A₁, A₂, and B), which may be conducted in combination or separately. Maintenance in transit at an intermediate airport will require no more than 20 minutes. The frequency of A₂ maintenance is 2 days, and the cycle of operational maintenance for form B is 30 days of operation (plus or minus 5 days), or 200 to 250 flying hours. Periodic maintenance is based on work performed at

fixed times according to the calendar (flying time or running time) and includes forms of maintenance that are labor-intensive and those that are not. The cycle of maintenance that is not labor-intensive comes to 18 months and includes the three forms every 3 months (600 to 700 flying hours). There are four labor-intensive forms of maintenance within the aircraft's active cycle of operation, and the times for carrying them out are closer together as the aircraft gets older. The first form is carried out after 6 years (12,000 to 18,000 flying hours). The maintenance and repair system selected is aimed at reaching an average annual flight time of up to 3,000 hours.

The program for developing and operating a fleet of 200 Yak-42M aircraft in the period from 1995 to the year 2000, it appears from the technical and economic substantiation, is economically efficient from the national economic standpoint. The level of profitability against the expenditures of all participants in the program comes to 30 to 40 percent, with full cost recovery by the years 2002-2003. The Yak-42M will begin operating on Aero-flot routes in 1994 or 1995.

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INTERSECTOR NETWORK DEVELOPMENT

Latvian Official Interviewed on Transport Ministry Reorganization

914H0049A Moscow GUDOK in Russian 22 Nov 90 p 2

[Interview with Yanis Petrovich Yanovskis, Latvian minister of lines of communication, by A. Geronyan: "Latvian Minister Against 'Iron' Monster"]

[Text] Riga—It is not necessary to accustom Yanis Yanovskis to directorship positions. He is the former Latvian minister of transport and road facilities and not too long ago took over the republic's new Ministry of Lines of Communication. What caused this reorganization? Economic necessity? Or was it an ordinary bureaucratic maneuver?

[Yanovskis] Everyone, who takes the trouble, criticizes transport workers today—and, generally speaking, with reason. Maritime vessels stand idle due to the untimely delivery of railcars, disputes between rail workers and motorists are arising, cargo is disappearing, etc. Practically all of the squabbling occurs where the branches come together.

Past years have shown that the expansion of the carrying capacity of one type of transport frequently occurs in isolation from another. The disproportions only interfere with their smooth functioning. It is difficult to coordinate the work of cooperating partners normally when some (motorists, river workers and railroad workers) are under republic subordination and others (the railroad, maritime fleet and civil aviation) are under union subordination.

Finally, we have often had occasion to collide with the fact that departments, especially the USSR Ministry of Railways, ignore the interests of the republics. The presently existing structure of this ministry and the common statutes, tariffs and norms, which are valid from Brest to Vladivostok, have become obsolete.

All of these problems and the interests of the consumers in Latvia led to the decision to establish a common transport complex for the republic and its own state management agency—the Ministry of Lines of Communication.

We intend to develop financial and economic normative acts and documents for organizing independent transport enterprises on the republic's territory, for example, the Latvian Railroad, the Latvian Maritime Steamship Company, etc. They will work together with the transport networks of other union republics and the countries of Europe and be completely subordinate to the Latvian republic's jurisdiction.

[Geronyan] In this case, it seems that you must have fixed capital. I do not think that the union departments will look upon its transfer to republic ownership with enthusiasm....

[Yanovskis] All three directors of the transport departments of Lithuania, Estonia and Latvia have visited Moscow and conducted preliminary discussions in the union ministries. They listened to us attentively—this is good.

However, concerning the ownership question.... To put it mildly, the center does not support this idea. The Ministry of Railways position, for example, is as follows. Everything should be firm and remain as is—even in an organizational respect. The assets, which belong to the union departments, are great. Who will easily give them up?

[Geronyan] Yanis Petrovich, as is known, representatives of the Russian-speaking population are the overwhelming majority among rail transport workers. Just as throughout the country, the processes in the Baltic area are complicated and contradictory. Many nonindigenous inhabitants of Latvia regard their future with anxiety. Many false rumors are circulating. I would like to hear from the minister's lips: Are jobs and stable incomes guaranteed to everyone?

[Yanovskis] I declare with all responsibility that this problem is a far-fetched one. Certain individuals are consciously promoting it. The Russian-speaking population should not fear "purges" and unfounded dismissals.

Fluency in the state, i.e., Latvian language, is not required of workers. Very likely, only cashiers and others engaged in the service area must know the language even if only at the everyday level.

Directors are another matter. All of them must master both languages since they work directly with people.

[Geronyan] How about business qualities and professional level?

[Yanovskis] These remain the chief criteria when selecting personnel. A knowledge of the state language and also of foreign languages, nevertheless, serves as only one of the indicators of an official's professional competency and training.

Up until now, the indigenous population has avoided the branch. Instruction in the two technical secondary schools and the Leningrad Rail Transport Engineers Institute branch is given only in the Russian language. It is the same situation in civil aviation. A Latvian maritime academy, where instruction is given in both languages, opened only this year.

I understand that interethnic relations are a delicate area. I do not want the incidents, which arose because of bureaucrats from the ministries, to be repeated. They outdid everyone in the Ministry of Railways, issuing an order according to which rail workers must associate with each other during work time... only in Russian. Fortunately, common sense prevailed and this order was recently reconsidered.

On the Baltic Railroad, only 27 percent are now Letts. All of them are employed in production. Only a few people of the indigenous nationality work in the Baltic's administration and divisions. Draw your own conclusions.... I repeat, no one plans to change the demographic situation by force. All fears are unfounded.

[Geronyan] What do you, the minister of lines of communications, imagine the ideal work organization model to be for rail transport in Latvia.

[Yanovskis] Honestly speaking, I am not inclined to believe in anything ideal. The republic is providing for the full volume of freight and passenger traffic. However, its quality leaves much to be desired. What does high quality mean? It is stabilizing the train movement schedule, accurately observing the timetable, and coordinating closely with cooperating partners—motorists, aviators, water-transport workers,... One can only dream about this.

It is inconceivably far to the ideal. However, one must now try to improve railcar and train maintenance and raise their class rating. One must increase travel speed and reduce the time passengers spend travelling on trips to the minimum.

The situation with freight shipments also remains a complicated one. We will try to arrange for the uninterrupted unloading and loading of rolling stock, fulfill shipping plans in a timely fashion, and increase the safety of freight being transported. Finally, we will devote our primary attention to the ecology.

That is my idea of the ideal....

[Geronyan] And the last question. In your opinion, what is the most promising type of transport in Latvia?

[Yanovskis] Each has its advantages. They should mutually supplement each other and operate in close contact.

If we take urban transport, the future probably favors street cars and trolley buses as the cleanest from an ecological viewpoint.

In providing passenger transport within the Latvian republic's borders, the future favors rail and motor communications.

Export and import shipments are unthinkable without the maritime fleet, and long-distance passenger travel—without air transport. We will not manage without freightcars and trucks for transporting goods.

Our ministry is counting on their expansion. Will we carry out all the plans?—time will tell.

[Geronyan] Thank you for the interview.

RAIL SYSTEMS

Deputy Minister Interviewed on Rail Sector Economic Programs

914H004 *A Moscow GUDOK in Russian*
17 Nov 90 pp 1-2

[Interview with L. I. Pingarev, deputy minister of railways, by GUDOK correspondent Ye. Malyuta: "Anxieties and Hopes"]

[Text] **Drastic changes are under way in the country. How do those who are praised by today's press, but not without sarcasm from officials, interpret their policy in the stage of transition to the market? We offer readers a discussion between a GUDOK correspondent and L. I. Pingarev, the USSR deputy minister of railways, who has a large professional school and work in a responsible party position behind him.**

[Malyuta] A common question, Leonid Ilyich: how will railroad transport exist under the conditions of the chaos of market prices?

[Pingarev] I am often asked this question on trips out of town as well. Our radical economists claim the market is a life buoy, but at the same time, only in the lobby interviews do they admit that the transition to it involves an unchecked increase in prices. However, we are already witnessing this. Let us take fruits, vegetables, and cigarettes sold commercially—they are more than many people can afford. Deputies in the Russian parliament felt the breath of high prices in the course of discussing the "500 days" program, and they rushed quickly to obtain motor vehicles at state prices, making people well-off in an hour. If this is not privilege, what is it?...

During the election campaign, our deputies dispersed lavish promises left and right, and of course, they vowed to improve people's lives. In actual fact, it turned out to be deception.

No matter how much they refer to the past and the times of stagnation, they—the elected representatives—also bear responsibility today for the worsening situation in the country. And they should not take refuge in graphic epithets directed against the command and administrative system or the invocations of figures in the past. Incidentally, on the latter. It is a fact, after all, and I am a witness: at one time the leadership of republics and the country's capital took steps to ensure that the public received the products from a new crop not in October, but in June and July. At that time, Kazakhstan procured them both for itself and the capital. Railwaymen did everything to see that Moscow received an abundance of agricultural products. This was impossible to deny.

But then, this fall we saw the harvest rotting in the field and railcars of produce that were not unloaded. We saw complete indulgence. It is strange that in one case they attempted to find extremes in the person of the transport workers, and another case, in the Center. From day to day, the press provided extensive reportage on congresses in Moscow, Leningrad, and Donetsk, and various sessions, not to mention the countless meetings and strikes. But we heard scant information on how the country has been working. But after all, we cannot feed the people with meetings.

Much is being said about the market, but in the meantime, respect for labor is declining and being devalued. Look at the work indicators in our sector: we are not speaking about increasing freight turnover; we are concerned about slowing the pace of its decline. The economist-prophets are warning everyone, including transport workers: expect production to drop by 5 to 7 percent. It follows that we will have a further decrease in transport volume. I don't need to explain what this means for railroad workers.

Hence their uneasiness about their future and the transition to other, highly paid work. In cooperatives and joint ventures, wages are already over 1,000 rubles. Can't the people—honest and unselfish workers—really notice this injustice?

And here I come to an answer to the question that you and many railroad workers have. If our transport is a state sector, then the responsibility for it should be a state matter. In Western countries, incidentally, transport workers are given priorities, compared with those who work in private production. It seems that everything is just the opposite here...

[Malyuta] Last month we witnessed the squabbles among state officials, politicians, and economists over whose program for getting the country out of the crisis is the most practicable and the least detrimental to the people. The press offered the "500 days" program as the only path to stabilization of the country's economy, as a market paradise. It is more apparent to the economists as they say. But if not a word was said in one of the programs about rail transport, how do you see them being implemented?

[Pingarev] We have become firmly convinced in the Ministry of Railways that all programs are doomed without the stable operation of the steel mainlines. Even if they are regulated with precision to one day or one hour. As we have begun speaking about market relationships, contract commitments between partners should be adhered to more precisely than ever before, and communication should function and deliveries should be made irreproachably. Transport cannot guarantee this today, inasmuch as it has not been provided with rolling stock, rails, and ties in the quantities needed. Its modernization and the construction of new lines are proceeding at a snail's pace. So let the authors of the programs amuse themselves with the bright future for a little while. The people will not be deceived! The miscalculation is that the leaders of the country and the republics are obviously underestimating the role of railroad transport.

[Malyuta] Leonid Ivanovich, you have not mentioned the consequences for the market which must be expected from the breakdown of the transport production line...

[Pingarev] The attempts to pull apart the system as patrimony can play a funeral march for both a market economy and the rising spirit of enterprise. Lithuania has sent us a contract to seize part of the Baltic Railroad. We don't need to guess how this will be echoed for other regions. And in the final analysis, we will all pay for our narrow-mindedness and disunity.

Transport, which has developed historically as a unified technological production line, should continue to be controlled from the center. This does not mean that the Ministry of Railways opposes contracts with the republics. On the contrary, they are needed to determine the amount of deductions in local budgets and the republics' contribution to development of the steel mainlines. In all probability, the republics will have to maintain passenger operations and build local lines and overpasses over existing lines. The local soviets will have the expenses, and sizable ones, to operate and build metros.

[Malyuta] The economy is just one facet of life. The blockades of lines are fresh in our minds, the discrediting of managers and the crusade against party organizations in labor collectives are continuing... How do you interpret this mass pressure, which smacks of politics?

[Pingarev] The radical press has been working well with the tacit approval of the leadership. The command and administrative system (by the way, name just one state in the world which manages without it) now remains in the Army, the KGB, the Ministry of Internal Affairs, and probably in the Ministry of Railways. And now most of the attacks are precisely against these integrating departments which are saving the state from disorganization.

Yes, we have not rid ourselves of the legacy of our totalitarian past yet. But we should not curse the social sores; we should cure the disease that caused them. As someone rightly said: the medicine for it is not the imported salve of others' freedoms, capable only of intensifying bad feeling, but diligence in labor, a moral

cleansing, and respect for the traditions of our forefathers. Only work makes us richer, which we have forgotten so quickly.

But now it turns out that people are disoriented today; they do not know what tomorrow will bring, just as the politicians and economists do not know. During the summer I had occasion to visit Tynda for a conference of the BAM [Baykal-Amur Mainline] officers. They asked me there how the Ministry of Railways staff views the changes in domestic political life and the multi-party system, and if members of other parties besides the communists are in it. I answered that the ministry staff has one party organization, and our opinion is united that one party should continue to be in transport in the future. I realize that this response is not to some people's liking, but this is the reality.

I want to point out at the same time that the party and trade unions consider it their duty to protect the interests of working people, but protect them from whom? From managers such as me? All of us—from the shop chief to the minister—descended not from princes, but engineers, railcar workers, and fitters. Our lot is to stand together to protect the interests of railway workers, the sector, and the country.

[Malyuta] They traditionally try to maintain order and discipline on the steel mainlines. As history shows, the trains were running even in the hard times of the civil war. It is hard to imagine what would happen to the country if railwaymen were flouting the constitutional laws, the decrees of the supreme authority, and the orders of the ministry as the legislators are doing in a number of union republics. But are they in a position to protect themselves in the rampant anarchy when the state does not take steps or limits itself to decrees alone?

[Pingarev] We cannot be surprised by the conduct of law enforcement organs, of course: the Ministry of Internal Affairs certifies the increase in crime, and the KGB in turn certifies... But in the meantime the railroads are being blockaded and blown up. I realize that order must be maintained everywhere. But the government and state organs have been called upon for this first of all.

But the fact is that we see their anarchy and the power of street mobs. Acts of civil disobedience follow one after the other—recurrences of psychological and moral pressure and aggression against the parliament, the government, and the deputies.

I was surprised when an entire group of people's deputies of the USSR and Russia came to Krasnodar Kray to support the election campaign of a retired KGB general. It turns out that they were there on private business, receiving a salary from the state and a deputy's allowance, and free tickets for the trip. This is the way they could stand up for the people's civil rights and freedoms that are being trampled in a number of republics or zealously assist people in social welfare.

The only consolation is that the railwaymen who are deputies in all the soviets are sickened by the role of initiators and participants in political performances.

[Malyuta] Our life is full of fateful circumstances. We will not speculate about the obstructions that railwaymen can expect on the way to the market. But it is already clear today that the railwaymen who are deputies will not have to be observers in the soviets, inasmuch as complete power will be transferred to them locally. What are the directions in Ministry of Railways activity that should be considered the principal ones today, in your view?

[Pingarev] There are two such directions: improvement in transport work and solution of the sector's social problems. We in the ministry expect that a decree will be issued by the President of the USSR concerning transport work over the entire transition period. Here is where we managers will have to work in concert with the railwaymen-deputies to stand up for our people and support the processes of perestroika in society by uninterrupted operation of the steel mainlines.

Rolling Stock Management Procedures Highlighted

914H0046B Moscow GUDOK in Russian 17 Nov 90 p 2

[Article by A. Kirilyuk, candidate of technical sciences: "Will the Railcar Have an Owner?"]

[Text] Moscow—The freight car does not have one now. It is not registered to a specific repair point which would be responsible for its technical condition. And even the record-keeping on railcars is not centralized; it is conducted by the appropriate railroad services anyhow. And consolidated statistics, which reflect far from the true situation, are compiled on this unstable basis in the Ministry of Railways.

Why? There are many reasons here, but the main one is the fictitious nature of the record-keeping. The fact that a car is registered to a railroad says only that its cost has been applied to the railroad's balance. But the balance value of the railcar fleet may be far from coincident with the actual fleet available on a mainline. The new ones that were obtained recently have been loaded and dispatched, and they are "spinning around" somewhere in the system, but the "owner" is content with what he received in accordance with the empties disposition order or from his own unloading. For this reason, the procedure adopted for amortization deductions from the balance value misrepresents the main indicator—the production cost of transport. And the subsequent centralized redistribution of these deductions (in proportion to the ton-kilometers fulfilled) changes little.

When a railcar is removed from the operating fleet, its unamortized portion is written off as a loss for the railroad of registration. What did they do wrong? After all, they used it on other mainlines, too. Moreover, the planning and financing of rolling stock repair are not

conducted according to the point of registration, but according to the railroads which have a repair base. This results in the need for regular centralized redistribution of amortization deductions. This system demonstrates once again that the railroad is not a real owner with fixed capital allocated to it and cannot have an influence on the custody of the fleet.

Lack of owner management also develops in this planning and distribution rotation, and the fleet turns out to be full of railcars of obsolete design with excessive periods of service and times between planned repair. For this reason, no one is surprised by the empty consists of "cripples" that are returned with roofs, sides, and floors destroyed and doors and hatches torn off.

Many tens of thousands of such cars are senselessly pushed over from railroad to railroad. Something is taken from them, it is repaired, it is loaded, and the remainder are pushed farther out. This fleet essentially belongs to no one. All our railcar operations are carried out on "ground" that belongs to no one.

For this reason, not only its current condition, but the practices they contrive here, are no surprise. For example, on a plausible pretext they invented a limited fitness label. This means that a car which has not been restored in time in the necessary quantity is assigned the role of a cripple. They still continue to operate it, loading it with lumber, construction, or other materials instead of bulk freight. Until it is finally finished off and prepared for a write-off.

It should be mentioned that in this respect the railcar park possesses tremendous inertia for breakdown. It is proportionate to its cost, calculated in many billions of rubles. Just a small push is enough, and the fleet itself will begin "falling apart" further in a chain reaction. And it will be very difficult to restore it; the shortage of resources, capacities, and time will be discovered right away.

Consequently, the existing registration of a freight car should not be simply a formality. Otherwise, a triple breakdown follows: physical, for the car; economic, for the railroad's indicators; and moral, for the persons who are deprived of their opportunity and incentive to work well. It is precisely for this reason that a railcar needs a real owner, not a fictitious one. And there can be at least two claimants to this role, with equal rights.

The first one is the railroad or the republic (where their boundaries coincide) in conformity with the current process of demonopolization and regional independence. Attempts at such economic operation are already being made in the Baltic and the Ukraine. For example, by establishing a so-called cooperative technology fleet of gondolas on the Dnepr, Donetsk, and neighboring railroads.

As in any business, there are merits and drawbacks here, but it is hardly worth denying the sense of such steps right off by threatening a breakdown of "the system" or

encroachment on its integrity. After all, the whole is made up of its parts, and the main point is how they are interrelated. And owners on the railroads will not begin destroying cars to their own detriment.

The second claimant to the role of owner is the Inventoried Freight Car Fleet Center (TsPV). It is being established under the condition that railroad transport will remain a unified whole in the infrastructure of the new Union of Sovereign Republics. Let us discuss this alternative in more detail.

The bases of the TsPV structure are as follows: the **property** basis (the registered railcar fleet is removed from the railroads' balance in accordance with its value); the **technical** basis (the computer file on each car and the computer network with the programs and other components); the **legal** basis (the rights delegated to the TsPV by the railroads and the ministry); the **economic** basis (cost accounting, leasing, and market relationships with the railroads and enterprises in the national economy); and the **production** basis (work in an automated routine in real time). With such "coordination," the center is capable of performing the most important tasks to ensure that cars in good working order are provided for transport in a timely and accurate manner. First of all, a current accounting and analysis of the technical status and condition of rolling stock will be organized for this, with details on each specific component; secondly, settlement with the railroads for operation, damage, or withdrawal from service; thirdly, planning, financing, and provision of incentive for all types of repair; and fourthly, monitoring the dislocation of inoperative cars, bringing the fleet up to date by balancing the ones written off with the deliveries of new ones by industry, and so forth.

In general terms, this is the centralized system, based on computers, to ensure that the fleet of freight cars is fit for operation. The idea for its development and practical realization was worked out over two decades ago by A. Petrov, corresponding member of the USSR Academy of Sciences, and A. Vinogradov (VNIIZhT [All-Union Railroad Transport Scientific Research Institute]). In subsequent years specialists from the ministry, the PKTB [possibly: Planning, Design, and Technology Division] of the ASUZhT [Automated Control System for Railroad Transportation], the ministry's Main Computer Center and railroads' computer centers, and a full-scale systemwide experiment was conducted in 1982. It received a high assessment, and the first section of this system was subsequently put into operation.

It would seem that the way to establishment of the Inventoried Freight Car Fleet Center was paved a long time ago: within the framework of this program, a new rolling stock numbering system was developed by Professor L. Tulupov, after which a railcar technical certificate was developed in conformity with it, and the remaining source documentation was completed last year. And suddenly this year the work to establish the center was discontinued altogether.

A considerable number of problems were encountered on the long path to it—scientific, technical, and purely bureaucratic ones. They were surmounted. So what has happened now, when transport is in critical need of renovation? We read: "Because of the limited nature of technical facilities... the ministry orders... that this not be carried out..." This directive was given by First Deputy Minister V. Ginko.

Perhaps this refers to the computers that are in extremely short supply and require a great deal of foreign currency? It turns out this refers to teleprinters of the most ordinary kind. About 20 of them are needed on a railroad for railcar depot equipment. If this is an ordinary shortage which is developing in our market, perhaps there is no harm in appealing to civilized countries with an outstretched hand. Otherwise our ownerless railcar will roll even farther into a siding with a dead end.

It is known that computerized management of railcar fleets has been used successfully for a long time in a number of countries, such as the (UMLER, TRAIN-2,) and other systems in the United States. It is obvious that our railroads do not have to wait for manna from Heaven in the form of the planned deliveries of teleprinters; they should be concerned about their noncentralized acquisition. Because under market conditions, you won't travel far or carry much with broken cars. And maybe some fellow from the ministry will help with good advice or a bawled order over the selector.

For this reason, if they have not found anything more suitable in the maze of ministry offices than "braking," the system can and should be put into operation by the railroads, on a shared basis. And it need not be a center under the Ministry of Railways at all; it can be registered in the "capital" of any railroad—in coordination with other lines and with their adherence to basic principles. One way or another, the freight car needs an owner—a responsible, concerned, and competent owner. For the good of each railroad, transport, and the country as a whole.

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Collegium Member Views Railway Economic Programs, Operations

914H0038A Moscow ZHELEZNODOROZHNY
TRANSPORT in Russian No 9, Sep 90 pp 36-37

[Article by V. A. Volkov, member of the Ministry of Railways Collegium: "Restructuring the Work of Railway Transport"]

[Text] I want to share some thoughts on how perestroika is proceeding, and what the sources and guideposts are in the main directions of the railroads' work. It is common knowledge that the importance of railroad transport lies in the uninterrupted functioning of all sectors of the national economy and in supplying the public with foodstuffs and industrial commodities, and hence, providing for a stable situation in the country. For this reason, it is especially

important to maintain strict adherence to technological and production discipline in transportation. We realize that a great many problems have accumulated today, and serious ones. Only painstaking, skillful, and conscientious work is capable of moving us forward.

Under current conditions it is necessary to consolidate and effectively utilize all the scientific and practical potential that has been accumulated—this is the most critical requirement not only for us, but the entire country. I think the most important thing now is to resolve problems with our brains, not our throats. It is impossible to operate as we did yesterday. Conditions have changed drastically and they are continuing to change. It was simple before: a selective conference was held, an assessment was given to managers in the most colorful terms, the order was given, and the problem was solved. This does not happen now. Today the ability to continuously and attentively master the art of management is required of each person working in the sector.

The responsibilities of a railwayman—official and moral—are extraordinarily diverse. The principal objective of the reorganization being conducted in transport is to provide for the needs of the national economy and the public for quality transportation and to guarantee normal working and living conditions for the sector's employees. The main goal of the course of life is to have a clear idea of why we are working and living. If our perestroika does not lead to the effect desired, it means that something is deeply wrong with the very approach to the problem's solution. We must look for an answer to many questions in our habits, in our conservatism, but sometimes in our loose discipline and irresponsibility. We must free ourselves from the captivity of false principles and stereotypes in thinking and recognize that we are in fact far from being as perfect and irreproachable as we were led to believe for many years.

So we are speaking about reforms, but we finding it very difficult to break with the usual approaches to the solution of transportation problems. This is holding back progress and fettering our thoughts and actions. But after all, the development of transportation science and practice is not single-valued and unidimensional; it allows for multiple variants and numerous specific, at times unexpected, but important details in performing the tasks that have been set.

An overall assessment of the strategy that has existed should be critical. We have found ourselves face to face with many very critical problems, and we must find our way out of them. But there is practically no answer today to the many vital questions, there is no suitable analysis of the path that has been taken, and there are few specific proposals.

If we take the long-term programs and the cycle of social programs adopted by the ministry's collegium, we have to admit that they have not played a positive role. The reason is that interdependent and fundamental solutions to problems, including the economic problems, have not

been completely worked out. We often reap the fruits of hasty conclusions and actions. It is not surprising that a feeling of intolerance has developed among transport workers, that social tension has emerged, and that it is becoming very hard to keep it in check.

Neither slogans nor declarations about railroad workers' special role in the country's life solve the problems today—we need recognition and respect for their labor and everyday life, improvement in technology, and proper introduction of advanced methods of organizing operations work. When we want to conceal and not deal with the deep roots of our mistakes, the attacks on subordinates begin. Instead of undertaking to resolve a specific problem, we attack each other. But after all, we are all working together and we have always treated our vocation creatively—not to take up an initiative. In order to eliminate the shortage of businesslike specialists with high moral standards who are not thinking about the problems of the moment, but about a far-sighted strategy and efficient tactics, we must allow them to work calmly.

Employees of the central staff, the railroads and divisions should be spokesmen and active defenders of the country's interests, provide for a close engineering relationship with the local organizations and enterprises, and guide and direct them to a solution of the tasks that have been set by life itself, that is, they should play a dominant role reforming all aspects of transport activity. The railroads' steady operation is a true sign of correct, strong, and progressive technologies.

It must be stated clearly that transport is operating today with an inefficiently high workload. Most of the mainlines in the system have practically reached the limit of the calculated level for the use of their technical equipment. The overloading of the main directions and the lack of reserves in throughput capacity, chiefly at stations, are leading to a periodic buildup of unshipped freight. At the same time, the length of time to deliver the loads is increasing, the turnover of working capital is declining, and utilization of the fixed capital and manpower resources of the railroads is deteriorating.

In order to establish scientific grounds for the directions and scope of development in the railroad system, a comprehensive assessment of its current status is required. Transport work is being provided for today at the price of excessive intensification in labor and the operation of technical facilities. This forced economic operation has led to a rapid increase in technical backwardness. The unwise economic methods which predominated for many years in transport, reduction of capital investments in development of its material base, is one of the main reasons for the situation that has taken shape. For this reason, it is extremely necessary to speed up the approval and implementation of a program to modernize the entire railroad complex.

In addition, the shortcomings in transport work are explained not only by the inadequate pace of the system's development and the lack of rolling stock and other technical facilities. Many of them are rooted in inadequate transport planning. Little attention is being devoted to coordination of transport work volume with the throughput and carrying capacity of railroad directions. If the transport plan is not balanced with the maximum possible carrying capacity and exceeds it, the density of the flow of trains will increase in sections, their speeds will decline substantially, the use of manpower resources will become worse, and car turnaround will slow down. In other words, the quality of use of technical and manpower resources depends to a large extent on optimal saturation of sections with trains, and this problem must be resolved in the stage of planning shipments and developing an improved train traffic schedule.

Developing an efficient and flexible structure for management of all activity in the railroad sector remains the most important problem. A protracted search for an ideal management model and the establishment of various structures on the railroads and in the divisions are typical for this difficult problem. Neither science nor practice has provided the best possible alternative as of this moment. Many specialists, including the author of these lines, confine themselves to a general plan for development of a management system. This plan provides for coordination of transport technology by regions and maximum retention of railroad and division boundaries for coordination of production and territorial principles with the newly formed structures for management of the national economic complex. We must consolidate the railroads and divisions more decisively and bring their number from 22 to 24 and 140 to 144, respectively. We simply cannot delay in adopting a decision such as this now, since this is related to the development of dispatch points for managing train traffic, in addition to everything else.

The experiment in 1985 in loading railcars up to 75 or 80 tons made it possible to increase carrying capacities in railroad transport and helped to ensure fulfillment of the transport plan. However, this measure was not reinforced by complex scientific studies, especially with respect to the interaction between rolling stock and the track. While the total length of the principal lines was increased by 3.5 percent in 1988, compared with 1980, and the loading per kilometer of the total length remained at the level of 1.01 railcars, the load per kilometer of track increased from 17.96 to 19.33 million ton-kilometers, or 7.6 percent.

This is one of the main reasons why the evaluation of track condition worsened by 60 percent, rail failures increased by 15 percent, and the number of warnings rose by 90 percent, not to mention that deformations of embankments and fatigue damage to bridge frameworks also increased. The accelerated depletion of the useful service life of rails required an increase in the amount of work to replace them. But after all, it was clear from the

very beginning that increasing the loads on rolling stock requires improvement in track design and solution of the major problems of its current maintenance. It is also appropriate to mention that research on the problems of interaction between rolling stock and the track continues to be one of the basic tasks.

The task of increasing average train weight holds an important place in the measures being taken in railroad transport to speed up the delivery of national economic freight. The adoption of increased weight standards has made it possible to carry additional hundreds of millions of tons of national economic freight.

Nevertheless, the approach to the problem of increasing train weight has become ambiguous lately; differing and sometimes completely opposite opinions on this are being expressed. And this is completely understandable: after all, in each specific case, increasing train weight is a complex engineering task. In a number of cases, it leads to an increase in the intervals between trains. For this reason, on sections with heavy traffic, increasing the weight at the expense of consist length is expedient if the increased carrying capacity exceeds the throughput capacity resulting from this loss.

It is quite clear that the basic criterion in resolving the problem of increased train weight is a determination of the effectiveness and objective need for this measure. Meanwhile, there have been no methodical studies thus far to determine the economic effectiveness of increasing train weight in a specific direction in conjunction with the speed of freight delivery to its point of destination.

It should be pointed out that the schedule speed of freight trains in the system has increased by 1.7 kilometers per hour, or by 5.5 percent, since 1980. Basically this was achieved by increasing the length of double-track lines (by 12.4 percent) and sections equipped with automatic blocking (by 22 percent). As far as the average speed between stops is concerned, it has not only not increased, it has even declined; only 60 to 65 percent of the average speed authorized in accordance with the condition of the track structure is realized.

This enables us to draw the conclusion that the capacity of the locomotive fleet lags substantially behind requirements in providing higher speeds on limiting sections. The question of improving the quality of the transport process by increasing the speed of all rolling stock continues to be unresearched; the optimal relationship between the speed of freight delivery and train weight norms on specific sections when pulling force is provided practicably has not been determined. Moreover, we must bear in mind that an increase in the average speed between stops is in proportion to the increase in the average daily run of locomotives and the railcar fleet.

In conclusion, I stress that development of the processes of perestroika—railroad transport's shift to economic methods of management, mobilization of all reserves, accelerated introduction of the achievements of scientific and technical progress and advanced experience,

and a state approach, not a departmental one, to the entire transportation cycle—should play a positive role in meeting the needs of the national economy and the public for transportation. At the same time, the quality of transport has to be correlated with the quantity of products transported, because inefficient shipments should be eliminated as detrimental to the country's economy and the railroads themselves. Making use of all the experience and scientific studies that are available to resolve the main problems that have accumulated, working efficiently under the conditions of new management methods, and ensuring that the work in each section is highly organized—this is the foundation of perestroika which will make it possible to sharply improve the work of the entire railroad complex.

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Data Bases Monitor Railcar Status

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[Article by P. A. Ustich, M. M. Bolotin, and A. P. Moksyakov, candidates of technical sciences: "Automating the Monitoring of Railcar Status"]

[Text] Work is now under way in the sector to develop cost accounting forms of economic management. In order to manage the increasing shipments of national economic freight, the trend is toward the use of intensive technologies. Mechanical loads on the structures of railcars and tracks are increasing. All this requires increased monitoring of railcars' status and provision for their timely repair and maintenance. Considerable help in performing this task can be provided by the advanced computer hardware being used in the information technologies being developed in transport, which provide for the production, the rapid and reliable transfer, storage, and processing of data on an industrial basis.

It is known that information on the technical and commercial condition and location of every railcar at a given time is fundamental in organizing the sector's operational and technical work. The employees of several services are involved at the same time in its production. In practice, this is done by having record-keeping forms filled out in standard situations by officials at the level of line enterprises in the system. All this vast amount of information rests basically with those same line enterprises, and it is separated once and for all from the railcars for which it was compiled.

But how do we increase the efficient use of all this information? First of all, we need to have continuous automated information tracking of a railcar throughout the entire cycle of its operation. Secondly, we need to organize rapid transmission of the source data to the various levels of management. And thirdly, we need to organize continuous accumulation of data on each car.

Source data are generated at freight handling points and stations. It is expedient to equip these points with facilities for the remote input of data to the storage devices of the regional center for data concentration (RTsD). Instead of filling out the appropriate forms when commercial documents are drawn up, malfunctions are discovered, and repairs are completed, the employees of line enterprises would enter in the RTsD computer the number of the railcar, the type of freight, the date and point of loading, the destination, the date and place of the last planned repair, the name of the structural element that failed, and the labor and materials used to repair it. To the extent that the cars are moved in the system, this information will be changed in time and space based on the readout of the numbers of rolling stock units and entered for the appropriate linkup with the information on a given car that was acquired earlier.

Information should be processed by the computer with the aid of special programs entered in the data bank of the RTsD in order to make use of it for operations management at the regional level, first of all, and secondly, to prepare the data needed for periodic transmission to the sector's control center (the Automated Transport Control Dispatching Center of the Ministry of Railways). Concentration of the operations information that comes into the ministry's GVTs [Main Computer Center] continuously from the entire system makes it possible to perform a number of tasks. For example, to trace the operation of a specific railcar for a specific period, to reveal excessive car layovers on clients' tracks, or to organize a large amount of data appropriate for standard plans to test reliability. The capacities of railroads' information computer centers can become the technical base for the RTsD on the railroads. ARM's [automated workstations] based on personal computers, which should be linked with the RTsD data bank, are established at the line enterprises.

It should be pointed out for the sake of fairness that the many years of work by a number of enthusiasts to develop viable devices for reading railcar numbers have not been crowned with success yet. Evidently someone in the Ministry of Railways considers this work of minor importance, since he sees in it only the opportunity to keep a record of the railcar fleet. But in this case we suggest that the functional capabilities of the information be expanded.

Work has been conducted in transport for a long time on computerization of the sector under the guise of developing the ASUZhT [Automated Control System for Railroad Transportation]. However, the huge expenses to develop it are not being recovered. Without embarking on an exhaustive analysis of all the reasons, let us single out two of them. The first one is that the existing conception of information for the ASUZhT, in our view, is not aimed at full use of the VU, GU, DU, and other record-keeping forms on the scale of the sector's powerful information potential. The second reason is the apparent lack of a bank of recognized

scientific methods for optimizing the parameters of the transportation process and the systems for repairing technical facilities in transport which are appropriate for multidimensional operational information.

The first reason is ruled out by introducing a mechanism which does not use paper for the rapid transfer of source information to the different levels of management when free and convenient access to it from outside is ensured. The second reason requires that a number of problems be resolved. The main one is that advanced information technologies should provide for the convenient coupling of scientific and technical knowledge with practice. As an example, calculated justification of the different systems for organizing rolling stock repair is necessary. As a calculated strategy for technical maintenance of a railcar we may consider giving a number of PTO's [technical maintenance points] in the system the right to "put off" the date for the next planned repair of rolling stock which is in good condition. The problem of justifying the planned level of reliability for railcar structures and other items also needs to be resolved.

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Railway Healthcare Organizational Structure Detailed

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[Article by O. N. Sorokin, first deputy chief of the Medical and Sanitation Main Administration, Ministry of Railways, and Professor A. A. Prokhorov, doctor of medical sciences and Honored Science Worker of the RSFSR: "Health Care in Railway Transport"]

[Excerpt] A vast network of railroads spreads over our country, linking together all regions and republics. This is the most popular, the least expensive, and most importantly, an all-weather form of transportation. Everything needed is delivered by the railroads, just as through the arteries of an organism—coal for the metallurgists, metal for the machine builders, agricultural equipment for the countryside, and agricultural products for the processing and storage points. In addition to the different kinds of freight, an ever-increasing flow of passengers is moved by the railroads, and suburban transportation is becoming more and more important in the rays of the large cities.

A characteristic of rail transport is that wherever a railroad passes through, life emerges and previously uninhabited regions are developed. When a new line is built, housing for those who operate it should also be introduced. This may be several houses or a settlement. To the extent that the natural resources of a region are developed after some time, sometimes considerable time, cities are formed near these railroad settlements.

Railroad workers live with their families and children in such settlements at new construction sites, as well as numerous line stations far removed from populated areas. They have the same rights as all of the people, but they cannot make use of them independently. For this reason, workers supply departments provide them with commodities and everything necessary for normal living—from furniture to clothing and a radio and television. But railroad medicine is concerned for their health. In addition to a network of hospitals and polyclinics, combined cultural and general service trains are in constant motion, moving from one small station to another. In addition to stores, a barber shop, repair shops, and a theater, they include a well-equipped polyclinic with physicians in various special fields. In addition, there are also special mobile medical formations—railcars with different specializations which attend to the railroad workers at small stations. This is a feature of railroad health care which is very important for a large detachment of employees.

There is one more feature of this sector of medicine. If we take the most prestigious vocation—a locomotive engineer, a great many things depend on the condition of his health: not only the safety of the freight being carried, but passengers' lives as well. But the engineer's work is becoming more complicated all the time: the weight of trains and their speeds are being increased. Medical examinations of engineers before trips have been introduced; to a certain extent, they improve traffic safety and they have been adopted now not only in other forms of transportation, but in other countries as well. A sensible work schedule, rest standards to restore working efficiency, and the best placement of instruments in the engineer's cab are determined with the help of medicine, and occupational illnesses are detected and prevented. The same kind of work is conducted for the other railroad specialties.

The sanitary service is also very important. It is well-known from history how quickly an infection is spread by the railroads. For this reason, medical assistance points have been established in the system for passengers, and there are sanitary control points, whose responsibility includes monitoring the condition of terminals and the cars of trains during their preparation and on the line of travel and preventing the spread of toxic chemicals carried by rail.

The domestic railroads have been in existence for over 150 years. The age of railroad medicine is a little less. In all stages, it has been developed in parallel with all the changes in railroad development. The Medical and Sanitation Service occupied a special place after the Great October Socialist Revolution. This attests to the considerable attention given to workers on the steel mainlines who provide transportation for passengers and freight throughout the territory of our vast country, at any time of day, in any season, and in any kind of weather.

Railroad employees make up one of the largest detachments of workers in our country, and the normal functioning of all sectors of the national economy depends on their work. The Medical and Sanitation Service is providing a great deal of assistance in the difficult work performed by workers on the steel mainlines around the clock and in every season. This organization has been called upon to serve the railroad and metro construction workers.

A feature of the organizational structure and activity of the Medical and Sanitation Service is the line principle of medical service, unlike the territorial principle in city and rural public health. By being part of the railroads, these services, like a railroad, often cover not only several oblasts, but republics as well. In emergency situations, taking into account that several billion passengers are carried every year, a pathogen can be carried by the railroads throughout the country in a very short time when contagious diseases develop. This requires a system of measures to stop possible epidemics. The history of the railroads' Medical and Sanitation Service during the civil war and the Great Patriotic War, as well as in peacetime, confirms that the sanitary and epidemiological institutions and preventive medicine institutions of railroad transport have played a fundamental and decisive role in preventing the spread of contagions by the railroads.

Medical support for train traffic safety is a feature of railroad transport's Medical and Sanitation Service that is no less important. The medical and psychological requirements for workers (locomotive brigades, dispatchers, track workers and others), as well as their working conditions, the systematic medical monitoring of their health and work and rest routine, and the indications and contraindications and other criteria which are worked out by the scientific research institutes in railroad transport make it possible to prevent the emergence of different diseases in this large contingent of highly skilled specialists.

The Medical and Sanitation Service develops the sanitation norms, rules, and GOSTy [All-Union State Standards] for rolling stock (locomotives, railcars, track machinery, and new technological processes at production facilities). This is especially important in connection with the increased traffic speeds and the length and weight of trains, as well as the development of rules and All-Union State Standards for the transportation of especially hazardous freight (radioactive, chemical, and so forth) and the development of measures to prevent accidents or wrecks of trains carrying hazardous freight.

Integrated social and hygienic research related to the technical renovation of railroad transport is a specific feature of Medical and Sanitation Service activity. In connection with the continuous increase in the volume and intensiveness of rail transport, the nature of the work process assumes more and more importance in the work activity of many of the leading occupational groups (engineers, dispatchers, and others) as one of the risk

factors in the development of present-day diseases: cardiovascular and nervous and mental diseases. For this reason, the health of persons in these occupations has been given especially close attention in recent years. The role of nervous tension in the work and its essential importance has been singled out in shaping the indicators of hypertonic disease prevalence. The overall orientation of sociohygienic research serves as the basis for developing long-range programs to improve working conditions and health protection and provides the opportunity to solve a number of fundamental planning and organizational problems in railroad health care.

So the organizational principles cited in developing the Medical and Sanitation Service demonstrate the need for its existence in a structure with other rail transport services; by working together with them, it resolves the problems which arise in this important sector of the country's national economy.

The structure of railway health care is as follows. The Medical and Sanitation Main Administration includes the Treatment and Prevention Department; the Sanitation and Epidemiology Department, with an operations sector; the Economics Department; and the Pharmaceutical Administration. The Central Sanitation and Epidemiology Station, courses for training medical personnel, six central clinical hospitals, and three central polyclinics are directly subordinate to the Glavsanupra [Medical and Sanitation Main Administration].

The Medical and Sanitation Service is a structural subunit of railroad health care and is directly subordinate to the Medical and Sanitation Main Administration, but operationally, it is subordinate to a railroad's management. The chief of the service has deputies for treatment and prevention and sanitation-epidemiology and the main specialists—a surgeon, therapist, pediatrician, and obstetrician-gynecologist. The railroad's hospitals, polyclinics, and sanitation and epidemiology station and independent antitubercular, oncological, and dermatology-venereal disease dispensaries are directly subordinate to the Medical and Sanitation Service; the railroad pharmaceutical division is subordinate operationally. In addition, the railroads have antitubercular hospitals for adults and children, children's hospitals for noncontagious diseases, physiotherapy hospitals, maternity hospitals, stomatology polyclinics, children's polyclinics, and medical-physical training dispensaries. Railroad divisions have division hospitals, sanitation-epidemiology stations, junction and line hospitals, and division junction and line polyclinics.

Altogether, the railroad system has 669 hospitals with 122,826 beds; 1,274 dispensaries and polyclinics to handle 120 million visits; 368 sanitation-epidemiology institutions; 4,400 health care stations in enterprises and institutions; first aid stations in terminals and paramedic-obstetric posts at line stations; 210 rooms for mothers and children at terminals; 764 pharmacies and

pharmaceutical stations and booths; and 35 pharmaceutical warehouses. Some 44,000 physicians in all specializations and pharmacists and over 115,000 middle-level medical personnel work in railroad transport. The sanitation and epidemiology institutions employ 22,165 staff members, 4,279 of whom are physicians and specialists with a higher education.

It should be pointed out that 166 departments in the country's medical institutes have been developed on the basis of our hospitals. Employees of the railroad system are being given a secondary medical education in 20 medical schools.

Polyclinic cars, fluorography cars, stomatological cars, and other railcars are operating in the system to bring highly skilled medical assistance closer to railroad personnel. All these measures have made it possible to improve medical service.

[Passage omitted]

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Managing Railcar Work, Status

914H0041C Moscow ZHELEZNODOROZHNYI
TRANSPORT in Russian No 9, Sep 90 pp 53-55

[Article by V. A. Ivashov, candidate of technical sciences: "Managing the Serviceability of the Railcar Fleet"]

[Text] Sverdlovsk—Under conditions in which the transport process is intensified, it is especially important to ensure that rolling stock that has been given high-quality preparation is delivered for loading in a stable and timely manner and proceeds to its destination point free of trouble. The worsening trend in the technical condition of freight cars that has been noted lately shows that the existing system for railcar maintenance and repair does not meet current requirements. The steps being taken to modernize the cars, renovate depots, and expand and develop the points for maintenance and preparation for shipment are not producing the proper result. A new approach to the organization and technology of railcar maintenance and repair is needed.

At first, rolling stock and other technical facilities were repaired only when malfunctions occurred. However, with the increase in transportation volume and the fleet of railcars, the problems of traffic safety came to the forefront. The organization of rolling stock repair in accordance with its technical condition led to its deterioration and an increase in the number of accidents and wrecks. For this reason, the railcar maintenance system underwent change. The planned-preventive method, with periodic inspection and preventive repair, was introduced on the railroads.

In subsequent years, this system was changed repeatedly according to the types of maintenance and repair and the frequency with which they were carried out, taking into account the rapidly changing operating conditions, the increased static load, the mechanized freight handling, the increase in traffic speed and gravity yard sorting, and other factors. However, in spite of continuous corrections, attempts to establish the best possible frequency for inspection and the forms and amounts of repair, the existing system of planned-preventive repairs cannot be considered sufficiently effective. The point is that hundreds of thousands of railcars that were built at different plants are in operation. With respect to the conflicting durability characteristics of the railcar that is "average for the system," and the lack of uniformity in its work, the mean time between failures for a specific railcar differs substantially from "the average for the system." Consequently, a short time will be set for the frequency of repair for one car, but a long time will be set for another one.

The planned-preventive system provides for obligatory disassembly of all railcar components which come in for repair. But the restoration of the faulty parts is carried out impersonally in accordance with repair grading. For this reason, when the components are put together, the alignment of all the parts with each other that was established previously under normal operating conditions is disturbed. It is known that this is the time that the intensiveness of malfunctions is increased, whereas the mean time between failures is shortened and the number of repairs is increased. In order to maintain railcar serviceability at the necessary level, we have to reduce the frequency of the planned types of maintenance and repair, which leads to an increase in the time and resources expended.

Taking into account what has been stated, it has become necessary to develop a system for upkeep of the railcar fleet in which the cars are repaired only when they really need to be. In our view, this problem can be resolved by setting up an automated system for maintenance and repair (ASU TO i R) based on a computer with a complex of technical diagnostics facilities. On the basis of diagnostic information on each railcar in the operating fleet, we can determine with sufficient precision which technical condition group it is in: it is in good working order, it is in defective condition for a specific reason, a defect in a specific part or assembly led to the car's failure, and so forth. In this case, when full information is available on each car, a shift is made from the planned-preventive system of normalization (during the operating period until major overhaul) to repair of the cars in accordance with their technical condition. This will provide substantial economy in manpower and material resources just by eliminating the operations to disassemble, clean, wash, inspect the condition, detect flaws in assemblies and parts, and other operations.

The system for managing railcars' reliability may be represented by the following diagram (Figure 1). The operational railcar fleet (Block 1) is considered to be a

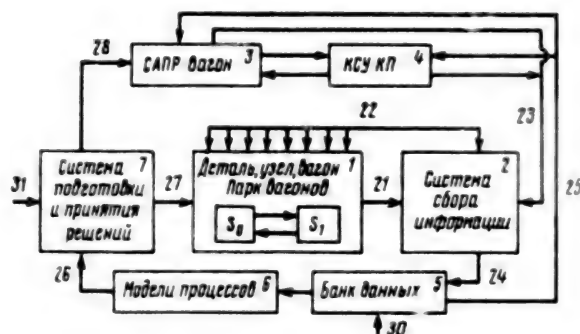


Figure 1

Key: Block 1. Part, assembly, railcar, railcar fleet; Block 2. Information collection system; Block 3. Computer aided design for railcars; Block 4. Complex system for manufacturing quality control; Block 5. Data bank; Block 6. Model of processes; Block 7. System for preparing and making decisions

composite technical system. An element in this system is the car, which may be in two conditions: S_0 —fit for service, and S_1 —unfit for service.

The shift to unfit status takes place under the influence of many different operational factors. They cannot be considered without complete, objective information on all the occurrences and processes which involve the cars' parts and assemblies and their interrelationship with the operating conditions. For this reason, a central position in the reliability management system is given to the collection of information on the technical condition of the cars and their assemblies and parts (Block 2 in Figure 1). All the information on a car's operation and its technical condition which comes in from the places where it originates (PTO's [maintenance points], PPB's [possibly: car acceptance points], railcar depots, plants, loading and unloading points) is concentrated here on communications channels (21). All the information on external influences on the car (22), the information on design and technological changes, the results of tests on assemblies and parts of cars in the design and manufacturing stage, as well as evaluations of their predicted reliability, (23) come in here. All the information undergoes preliminary processing (24) and is transferred to machine carriers and concentrated in the data bank (Block 5).

Scientific research organizations and the design departments of manufacturing enterprises, as well as operations enterprises, are the users of the data bank. Under the existing structure of management, the data bank is organized under the Railcars Main Administration of the Ministry of Railways. The systematic flow of complete and reliable information (25) to the manufacturing enterprises will make it possible to make decisions in a timely manner and within optimal limits with regard to design and technological improvement of railcars in series production, and to respond promptly to changing

conditions by putting advanced, reliable designs of cars into use in the quantity needed.

Multivariant calculations of the predicted reliability evaluations of the assemblies and parts of the cars being turned out are made in the design stage on the basis of the computer aided design system (SAPR) for a railcar (Block 3) and the complex system for manufacturing quality control, KSU KP (Block 4). Results of the calculations and information on the design and technology improvements (23) are sent into the information collection system and stored in the data bank.

Theoretical models of processes are put together in working out measures to improve the railcar maintenance and repair system (Block 6). Taking into account the restrictions and availability of resources (30), the results of modeling actual car maintenance processes (26) are utilized in the system for preparing and adopting solutions (Block 7). Taking into account information coming from planning organs (31), several variations of measures are prepared with technical-economic and social assessments for each one of them. The decision adopted by the Railcars Main Administration of the Ministry of Railways (27, 28) is transmitted for implementation into the system of operations, planning, and manufacture. The reaction of this system to the management decision moves by the communications channels through the information collection system (Block 2), storage in the data bank (Block 5) and comparisons with the processes predicted by models (Block 6) into the decision-making system (Block 7) for evaluating the effectiveness of the alternative adopted.

The railcar reliability control system under consideration provides for a continuous intersectorial exchange of information at all levels of management. The upkeep and procedure for planning and carrying out operations in the system are reflected quite fully in sectorial standard OST 24.001.31-79, "The complex system for controlling product quality. Planning and conducting operations to improve railcar quality in all stages of its essential cycle."

Management of the railcar fleet's serviceability on a railroad, in a division, or in a guaranteed section of a railcar depot as an integral part of the system of controlling railcar reliability represents the sum total of the operations, interrelated by place, time, and nature of work, to maintain the railcar fleet in the assigned condition of readiness for transporting national economic freight of all types. The controlling influences are worked out on the basis of information on the reliability of cars' assemblies and parts, information on the statistics of incidental processes in changing the parameters of the fleet's technical condition, and other factors.

Let us examine one of the variations in collecting and processing source information on the technical condition of freight cars on a railroad. In the first stage it is necessary to review the organizational structure of railcar operations. For this, let us single out sections on

the railroad with steady railcar flows and "assign" them to the railcar depots they are dependent on. Let us consider these sections—structural units of the railroad's railcar administration—as guaranteed sections of a railcar depot. The work of railcar depots' operational subunits includes the development and introduction of organizational and technical measures for maintenance and repair which provide for the trouble-free movement of railcars to guaranteed sections.

After analyzing the influence of each of the subunits in a railcar depot and the sections located in them on the trouble-free movement of railcars, it is necessary to optimize their composition and quantity, as well as to ensure their efficient arrangement by section.

The dispatch centers at each railcar depot are equipped with a staff of operations managers, a complex of technical facilities, dispatch stands and panels, and telegraph, radio and television communications with all the railcar administration subunits located in guaranteed sections of the depot. The dispatch centers are equipped with minicomputers and communications facilities for exchanging information with the computers of nearby railcar depots. In addition, there is direct communication between all computers in railcar depots' dispatch centers and the railroad's IVTs [information computer center].

A consolidated record of defects is compiled in all operations with a car: in preparing for loading and unloading, when a car is sent out on the line, and in all types of maintenance and repair. It provides the car number, indicates whether it is loaded or empty, the plant and date of manufacture, its route on the railroad, the number of the train and its time of arrival at a station, and the type and date of the previous repair. When maintenance and repair work is performed, the type, date and place where it was carried out is entered in the record. In addition, it records the year of manufacture, the plant, date and place of the previous repair of the automatic coupling, cast parts of the trucks and wheel pairs, as well as journal box units with roller bearings, and for plain bearings, the date and place where the bearings were installed. Information in the defect record is transmitted by a communications channel to the computer of the dispatch point in the section where the car is located. Information from the technical diagnostics facilities situated on approaches to the station and in sections also comes here by communications channels.

The volume of information reporting on one railcar in digital code amounts to 100-150 bytes. Recording it on a special pattern [trafaret] when the car is inspected will require no more than 2 person-minutes. When there is a consist of 50 cars, a 2-hour interval in planning, and the passage of 10 trains through the section in this interval, the volume of operational information will be completely adequate for accommodation in the main

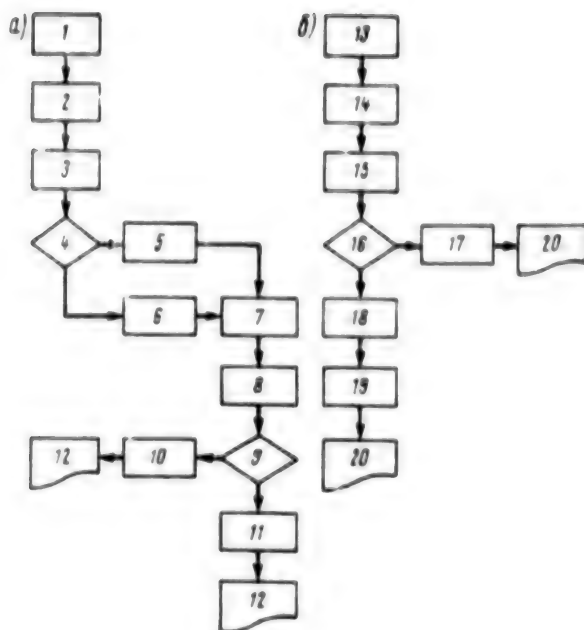


Figure 2

memory of a complex of two minicomputers of the SM-1800 type or other more advanced types of personal computers.

An overall view of the algorithm for railcar serviceability management may be depicted in the following form (Figure 2). In the initial stage of introducing the system from the station where the railcar flow enters the railroad, information on all the cars in arriving trains is transmitted on communications channels to the dispatch center. Block 1 organizes the source data at the initial point in time (for example, 0000 hours on 1 January 1986). Information from the diagnostic devices arranged on approaches to the station goes into this block.

In Block 2, the computer determines the time that each car has been in operation since it was built. (For example, data was received on railcar No 67874444, manufactured by the UVZ [Ural Railcar Manufacturing Plant] on 10 September 1965, major repair at the Kanash VRZ [Railcar Repair Plant] on 15 September 1980, depot repair on 25 September 1985 at the Smychka Depot, Sverdlovsk Railroad). The length of time the car has been in operation is 21 years, 8 months and 10 days.

In Block 3, the number of previous repairs is determined and the date and type of the next planned repair and maintenance is established. In the example cited, the car should have had two major repairs and 19 depot repairs. The next major repair is no earlier than 10 September 1987, that is, the car had to run for another 9 months before the next depot repair. In accordance with a special Ministry of Railways directive, the next inspection of the automatic braking equipment should be no later than 1

January 1986. Thus, of the planned types of maintenance and repair, only an inspection of the automatic braking equipment was necessary for this car in the planned period.

In Block 4, the procedure is established for the car's operation from the current date. If the time that the car is in operation from the previous planned repair to the current date exceeds the established period between repairs, a plan is drawn up (Block 5) for movement to the appropriate form of planned repair. In this block, based on assignments of cars to planned repair using optimization methods (for example, linear programming), a plan is organized for sending it to railcar repair enterprises. At the same time, the remainder of cars in planned repair in the preceding days is taken into account. This is where the numerical counting by railcar depots of the layover of all cars in planned repair is performed.

If the periods of planned repairs have not yet arrived, in accordance with a special program based on reference models of the change in the reliability indicator, the predicted evaluation of failure intensiveness, $\lambda(t)$, is determined for all parts and assemblies of the car (Block 6). Reference models are laws and digital parameters for the assignment of a service life for railcars' parts and assemblies before failure. The assignment laws are defined in accordance with methods worked out in the reliability control system, but the digital parameters are continuously defined more precisely according to statistical data stored and systematized in the bank.

In this case, the car is considered as a complex mechanical system made up of three groups of assemblies and parts linked in sequence. The first group is the sum total of parts and assemblies which determine the car's period of service as a whole. As a rule, these are parts and assemblies which have the longest mean time between failures. They include assemblies in the frame and body of the car, parts of the undercarriage, the automatic brakes, and other parts. The second group is the sum total of parts and assemblies whose mean time between failures is determined by the period between major repairs. The third group are those assemblies and parts whose mean time between failures or period of service coincides with the time between depot repairs (for example, the brake blocks, parts of the articulated coupling of the linkage, bolted joints, and so forth). Reference models are built for the parts and assemblies of all cars in each group according to the year of manufacture. In accordance with the predicted evaluations that were calculated, $\lambda(t)$, the labor-intensiveness of maintenance and repair (block 7) is determined and a work assignment is organized for the railcar administration enterprises along the car's line of travel on the railroad.

In Block 8, the railcar fleet is distributed according to age and the coefficient of technical availability, K_{tr} , is calculated.

In Block 9, a comparison of the calculated K_{ig} is made with the assigned coefficient, K'_{ig} , which is determined from the condition of the railcar fleet's fulfillment of the plan for the transport process in a division in the period planned. If K'_{ig} is less than or equal to K_{ig} , that is if the calculated coefficient is greater than the one that is assigned, a plan for maintenance and repair in conformity with the technology and organization established is organized. If the assigned coefficient is greater than the calculated coefficient, calculations of the resources required to perform a larger volume of work will be made in Block 11.

In both Blocks 10 and 11, work assignment 12 is organized for inspection and maintenance of the cars coming to the railroad's PTO. This ends the first stage of operation in the railcar serviceability control system—the stage of planning maintenance and repair. The planning period is defined in such a way that one-half hour to 2 hours before the approach of a consist, the PTO employees can familiarize themselves with the expected volume of work and prepare to carry it out.

Block 13 is the transmission of information from the defect records to the machine carriers and the input of data in the computer. Block 14 sorts the defect records by the years in which the cars were manufactured and the time in operation since the previous planned repair. Tables of failures and damage to assemblies and parts are compiled. In Block 15, calculations are made of the reliability indicators of assemblies and parts according to statistical data. The reliability indicators obtained are compared in Block 16 with those that are predicted. If the reliability indicators calculated in accordance with statistical data are better than the planned indicators, we can draw the conclusion that the system of maintenance and repair is working well and that measures to improve the design and technology of railcar assemblies and parts are effective—Block 17. An analysis is made of the influence of management decisions on railcars' reliability. Results of the analysis are recorded on the storage devices and transmitted to the data bank.

If the calculated reliability indicators are worse than the planned indicators, an analysis is made in Block 18 of the reasons for the decline in assembly and part reliability. For example, the reason may be a change in the operating conditions or a deterioration in quality in the divisions adjoining the one under consideration. Suggestions and measures are drafted in Block 19 to improve railcar reliability and ensure trouble-free operation on the path of the railcar flow.

In this way, we can objectively provide for the planning of maintenance and repair on each railroad even today. And data on the plant and date that a car was built are the source information to resolve the planning problems.

In carrying out the planned railcar maintenance and repair assignments at PTO's, MPRV's [possibly: mobile car repair stations], and the railcar loading preparation points in car depots, a defect record should be made up

for each car with obligatory indication of the plant, year of manufacture, and the date and place of the previous repairs. Information on the technical condition of each car which is entered in the record by communications channels is entered in the computer for subsequent processing.

Data on the calculation of railcars' reliability indicators and the effectiveness of the maintenance and repair system in preceding days are transmitted from all divisions to the information center of the railcar administration service or the railroad's information computer center. Statistical data and results of the analysis for the railroad are transmitted to the GVTs (Main Computer Center) of the Ministry of Railways. The principle of railcar reliability control that is proposed requires that all railcar depots be equipped with computers and that all enterprises in the railcar administration be linked by a complex of technical communications facilities, which is fully capable of solution at this time.

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Transport Researchers Association Highlighted

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[Article by V. G. Savelyev, vice president of the Transport Researchers Association and director of Giprotranstei [State Institute for Technical and Economic Surveying and Planning in Railroad Transportation]: "The Transport Researchers Association"]

[Text] It is entirely natural that the changes taking place in the country's economy are also reflected in transportation work. There is a change in the volume of output in a number of sectors, but implementation of decisions on regional cost accounting entails a change in transportation relationships in the economy. It is too soon to make any predictions, of course, but optimizing these ties under the conditions of a market economy may involve a change in the structure of transport work, with some reduction in freight transportation volume and a significant increase in passenger transportation volume. Development of transportation's material and technical base, its provision with new equipment, and the introduction of advanced technologies will be the main problems in providing for transportation in the near future.

One of the main directions in the economic reform that is under way is the creation of alternative economic structures based on new forms of economic management. The tendency to seek economic protection under the conditions of a market economy forces enterprises and organizations to unite for joint activity on a professional basis in associations, consortiums, concerns, and so forth.

The Transport Researchers Association was established in the Soviet Union in October 1989. This is the first

independent association of scientific research and planning and design institutes, scientific production organizations, and higher educational institutions which is not directly dependent on ministries and departments. The association conducts joint research, planning, design, expert consultation, educational, and other work with respect to the most pressing problems in the functioning and development of transport in international communications.

The founders of the association are over 20 of the largest institutes, VUZes, and scientific production associations in the country. They include central scientific research and planning and design institutes and higher educational institutions for railway, maritime, river, motor vehicle, and air transportation, as well as transport construction.

Railroad transport is represented in the association by the All-Union Railroad Transport Scientific Research Institute (VNIIZhT), the "Soyuzzheldoravtomatizatsiya" Scientific Production Association, the State Institute for Technical and Economic Surveying and Planning in Railroad Transportation (Giprotranstei), the Central Scientific Research Institute of Information and Economic Technical Research [sic] (TsNIITEI), the All-Union Correspondence Institute of Railroad Transport Engineers imeni F. E. Dzerzhinskiy (MIIT), and the Khabarovsk Railroad Transport Engineers Institute. The All-Union Scientific Research Institute of Transport Construction (TsNIIS) and the Moscow State Planning and Surveying Institute of Transport Construction (Mosgioprotranstei) are full members of the association as well.

The foreign economic complex is represented by the All-Union Academy of Foreign Trade and the All-Union Scientific Research Institute of Foreign Economic Relations, the USSR Academy of Sciences is represented by the World Economics and International Relations Institute, and the USSR State Committee for Public Education is represented by the Moscow Management Institute imeni S. Ordzhonikidze. Most of the founding members are located in Moscow, but institutions from other centers in the country are represented as well.

The Transport Researchers Association is a juridical person and operates on the basis of self-management, cost recovery, and self-financing. Its basic objectives include: provision of scientific-practical and consultation assistance on a cost accounting basis by association members to Soviet and foreign cooperative and public enterprises and organizations and joint ventures, as well as to private individuals, on questions related to transportation in foreign economic relations; the organization and conduct of scientific research and planning and design work in the field of international transport relations and foreign countries' transportation activity; the provision of expert opinion on plans for development of transport facilities and systems which provide for international transportation; the preparation and conduct of

seminars, meetings, and conferences, including international ones, on transportation problems in foreign economic cooperation and participation in the activity of international organizations; conducting an exchange of information among participants with the data bases of international organizations and the information centers of other countries; improvement of association members' skills by a continuous exchange of knowledge and experience; organizing the training of Soviet and foreign specialists in the features of Soviet transportation markets; and organizing an exchange of educational programs, courses, and specialists among the transportation VUZes and scientific centers in the country and abroad.

Three centers have been provided in the association to carry out its day-to-day work. One of them is involved in the organization and conduct of scientific research and planning and design work, the provision of consultation and other services, and the provision of expert opinion under contracts with Soviet and foreign clients. The field of activity of the second center is international cooperation. Organizing relations with related foreign organizations, intermediary services, searching for potential business partners for association participants, advertising activity, and holding international conferences—all this is part of the functions of the International Cooperation Center. The third center—for educational programs—is concerned with the organization of creative contacts between transportation VUZes in the country and ones in other countries. This includes an exchange in training programs and courses in various transportation specialties, as well as exchanges of students and teachers. Accelerated training may be given to foreign specialists in the Soviet Union on all matters related to operation of the transport system in the USSR.

One of the priority tasks of the association is to hold an All-Union scientific-practical conference on problems of providing for transportation in foreign economic relations under the conditions of the basic economic reform. It is planned to work out an overall approach to integration of the transport system in the USSR with international transport. One of the steps toward this integration is to speed up and introduce national and international standard communications and plans in accordance with the EDIFAKT [expansion unknown] system for exchanging transport information between computers.

The association is in a position to enlist the most highly qualified Soviet scientists and specialists in the field of international transportation in the work. They are capable of resolving a wide range of general economic, organizational, commercial-legal, ecological, advertising, commercial-business, foreign exchange and financial, statistical and accounting, information, and other problems related to the provision of transportation in foreign economic relations within the boundaries of the USSR and other countries.

The association's headquarters is in Moscow, in the All-Union Academy of Foreign Trade, which is the largest and oldest center in the USSR for retraining

managers and specialists for foreign economic activity. The address is: Moscow, Ulitsa Pudovkina, Building 4a.

The association, which has both transport and foreign economic scientific, educational, and planning organizations in its membership, has been called upon to promote harmony in relationships between the carriers and the owners of freight. It has a powerful intellectual potential in practically all forms of transport activity. Soviet scientists and transportation specialists intend to interact assiduously with their colleagues abroad—in Eastern and Western Europe, in Asia, Africa, and Australia, and in North and South America. For its clients, the association is a simple and efficient means of establishing contacts with any organizations in the USSR which are related to transportation.

The Transport Researchers Association is now working actively both within the country and abroad, and invites production, scientific, planning and surveying, and educational transport organizations to take part in joint fruitful activity.

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Parts Shortages Hamper Line Maintenance, Winter Preparations

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[Unattributed article: "Winter Is a Critical Period"]

[Text] This past winter was noted for difficult meteorological conditions, especially on the railroads' European portion.

However, the snowfalls and snowstorms, which occurred on a number of railroads, in particular on the Southeastern, Kuybyshev, West Kazakhstan, South Urals, Gorkiy, and Kemerovo, revealed serious shortcomings in organizing the battle against snow. This led to the delay of trains when they traveled on the sections and reduced railcar handling rates at stations.

Disruptions in train movement on the West Kazakhstan Railroad's Makat-Kandagach section, the South Urals' Krasnogvardeyets-Novoperelyubskaya section and the Volga's Novoperelyubskaya-Pugachevsk section and in the Kuybyshev Railroad's Kuybyshev hub were permitted because of the untimely operation of snow removal equipment.

The shortcomings in preparing stations and personnel for winter operations led to the slowing down of railcar sorting at gravity humps; train delays at the stations of Khabarovsk-2, Sverdlovsk-Marshalling Yard, Lenin-grad-Marshalling Yard-Moscow, Likhaya, Osnova, Kochetovka, Yudino, and others were permitted because of the poor clearing of track and switches of snow.

How were snow removal and snow clearing machines used last year? A total of 1,074 snow-removal machines, 2,098 snow-clearing machines and 146 track flangers

were in operation. However, since there was little snow during the winter, the number of working machine-shifts was reduced somewhat. At the same time, this indicator increased on the Northern, West Kazakhstan, Tselina, Alma-Ata, Sverdlovsk, West Siberian, and Baykal-Amur railroads.

The total idle time of snow-removal machines last winter was 9,998 machine-shifts, including 3,344 machine-shifts (33.4 percent) due to the failure to allot track. It was basically for this reason that snow-removal machines stood idle on the Donetsk, North Caucasus, Krasnoyarsk, and Far Eastern railroads. Idle time above the network's average was allowed on the Southeastern (72 percent) Volga (75 percent) and Kemerovo (67.2 percent) railroads.

The average output of one snow remover last winter was 9.7 machine-shifts and decreased 1.4-fold in comparison with the winter of 1988-1989. It was higher than the network's average on several railroads during this same time. Thus, it reached 14 machine-shifts on the Northern Railroad, 17.5 on the Transcaucasian, 19.0 on the Volga, 98.1 on the West Kazakhstan, 13.7 on the Tselina, 26.7 on the Alma-Ata, and 17.4 on the Sverdlovsk.

More than 148 million cubic meters (78.5 percent) of the snow was removed using the mechanized method. This is 6.3 percent better than the previous winter's indicator. The railwaymen of the Moscow (82.9 percent), Northern (85.9 percent), Southeastern (80.5 percent), Tselina (86.1 percent), Alma-Ata (85.3 percent), Sverdlovsk (85.2 percent), West Kazakhstan (89.1 percent), Far Eastern (88.5 percent), and Baykal-Amur (82.4 percent) railroads achieved the highest level of mechanized snow removal.

Fewer resources were expended on battling snow last winter than during the winter of 1988-1989. The cost of removing one cubic meter of snow was 37.4 kopeks. The Donetsk (93 kopeks), Southeastern (89 kopeks), North Caucasus (77 kopeks), Central Asian (72 kopeks), Transbaykal (66.8 kopeks), and Moscow (63 kopeks) railroads had the highest snow removal costs.

Without a doubt, if the major volume of snow removal work is transposed to the shoulders of machines and if all technical resources for clearing switches of snow (air blasting and electric heating) are linked up, not only will snow removal expenditures be reduced—but, and this is the main thing, there will be no interruptions in train traffic during the winter.

Transport losses were not only permitted last winter due to the unsatisfactory organization of the battle against snow during periods of snow storms and snowfalls. It is also difficult to insure train traffic safety during that time of year.

The number of notices about limiting the speed of train traffic grew and the number of rail breaks increased due to the track repair plan's incomplete fulfillment on the threshold of the winter, the unsatisfactory organization

of track condition monitoring and the untimely elimination of breakdowns. As a result, traffic safety conditions significantly worsened. Train wrecks and accidents were allowed due to the fault of track workers on the October, Moscow, Northern, Kuybyshev, Tselina, West Kazakhstan, East Siberian, and Southeastern railroads.

The pressure of snow and dirt under the rail feet has recently become a winter scourge for track workers. The pressure mechanism is a simple one and should be well known to track workers, especially those working on sections with wooden ties and spike fasteners. You see, there has been quite a bit of unpleasantness on the network because of pressure during past winters.

Eleven cars of a passenger train derailed in January of this year at the 460-kilometer marker on the Kondopogazh-Nigozero section of the October Railroad's Kondopozhskaya Subdivision. The reason was the widening of the track due to the pressure of snow and dirt on the tie plates (as a result, the rail foot left the flange of the tie plates). Both the brigade leader and the road foreman had detected the expansion of the track to 1,548 millimeters at this kilometer marker during periodic inspections but they did not establish the true reason. The subdivision's deputy chief had examined the track in the neighborhood during December of last year and also did not bring to light the heaving of the ballast in the tie spaces and the pressing of the snow and dirt on the tie plates. A track measuring railcar, which the track subdivision chief accompanied, had traveled over this section two days before the accident. He did not arrange for the elimination of the fault on this ill-fated kilometer.

The main attention must now be directed to anesthetizing the track in the proper manner and thereby increasing its reliability. There is no need to convince track workers that an untimely eliminated settlement at a joint can serve as the cause for a rail breaking under a train.

A freight train wreck occurred in February of this year on the Kuybyshev Railroad's Sterlitamakskaya track subdivision. The cause was the breaking of a type-R65 rail. In January, the track subdivision chief was chairman of a commission charged with completely examining the track in this vicinity; however, the commission did not detect the faults which were a threat to traffic safety. They had checked the rails on this kilometer with a nondestructive testing dolly three days before the wreck. The track brigade straightened the track horizontally; however, the sag in the joint, where the end of the rail receiving the movement broke, was not eliminated.

A passenger train wreck occurred in March 1990 on the Moscow Railroad's Kaluzhskaya track subdivision. The reason was the expansion of the track. The kilometer, where the cars derailed, had been rated unsatisfactory eight months previously based on the passage of a railcar track measurer. A week before the wreck, this kilometer was appraised at 2,538 points based on notes on the track measurer tape. The section chief had discovered

faults, which required immediate elimination: rail breaks, sharp settling and sags in the rails, on this kilometer during January, February and March. However, measures were not taken to eliminate the rail dislocations and the movement speed of trains was not limited. The track workers counted on: "Perhaps, it will carry." It did not carry.

There are still quite a few of these sections on the railroad network where it is necessary to carry out improvement work immediately and replace worn out ties, fastenings and rails. Ties, rails, transfer bars, switches, and fastenings are, of course, in catastrophically short supply. However, one should not wait for trouble.

Fixing track is an important precondition for its reliable operation under difficult conditions. Only seven railroads have fulfilled the established repair plan for all types of major work during the first eight months: the Belorussian, Gorkiy, Dnepr, Donetsk, Sverdlovsk, East Siberian, and Transbaykal. The Moscow, North Caucasus, Southeastern, Kuybyshev, Tselina, Alma-Ata, and West Siberian Railroads have allowed the greatest shortfall in fulfilling the plan for capital repairs to the track.

The main reason has been the failure of USSR Ministry of Metallurgy enterprises to deliver rails (420 kilometers during the first eight months). However, more than 11,500 rail fastenings were delivered during that same period, in general.

The majority of railroads did not fulfill the schedule for capital repairs to the track on the main passenger ways and the most important and greatest freight density avenues of the network. Thus, the October Railroad fulfilled only 66 percent of its quota, the Moscow—92.8 percent; the Lvov—73.1 percent; the Odessa—48.3 percent; the North Caucasus—66 percent; the Southeastern—31.2 percent; the Kuybyshev—70.9 percent; South Urals—60.6 percent; the West Siberian—72.3 percent; and the Kemerovo—92 percent. Whereas the overall failure of the plan for capital repairs to the track can be justified by the shortage of materials for the permanent way, the failure to fulfill the task on these sections can only be explained by unsatisfactory work organization and the scattering of resources to other sections.

Here and there, there is still time to make up the shortfall in repairing the track and to try putting station and siding track into order—to remove old material and railcar items and clean the track of litter and thereby create conditions for the unimpeded movement of snow removal and snow clearing equipment.

The breakdown of central switches inflicts quite a bit of damage on shipments during snowfalls and snowstorms. Here, technical measures along with organizational ones and the introduction of the Moscow Railroad's experience are important. This year, we planned to equip 1,348 switches with pneumatic cleaning devices and 7,000 electrical heating systems using all financing sources. However, only 812 switches (12 percent of the quota)

have been equipped with electric heat during the eight months. Again, the factories failed to deliver the control cabinets and components—knife-blade switches, magnetic starters, package switches, etc.

The Alma-Atinskiy, Gomelskiy and Kamyshlovskiy electromechanical plants and the Batumskiy Transformer Plant failed to fulfill this important quota.

A Ministry of Railways directive about conducting a complete autumn commission inspection of the track, roadbed, man-made structures and railroad crossings traveled to the line at the end of August. The directive pointed out: "Consider the detection and elimination of faults, especially those threatening the safe movement of trains and those requiring limitations of travel speed; a check of the readiness of personnel, equipment, snow removal equipment for work during the winter; and the insuring of a winter reserve of material, inventory and special clothing to be the main task of the fall inspection of track facilities."

This is now one of the main organizational and technical measures that complete the preparations for winter. It is important during this period not only to improve the condition of the track and structures but also to bring the staff of fitters, brigade leaders and road foremen up to strength and to finish the training of those undergoing their first winter.

The overwhelming majority of track workers, of course, have studied Order No 13Ts dated 3 July 1990 entitled "On Preparing Rail Transport for Operations During the 1990/1991 Period" and have already carried out many of the specific measures stated in it within the established timeframes. However, where they have not managed to do something, there is still time to make up for what has been omitted so as not to repeat past mistakes.

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MARITIME AND RIVER FLEETS

Shipyards Activity Noted

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[Reports prepared by A.N. Khaustov: "At the Shipyards"]

[Text]

Black Sea Shipyards Production Association

The large freezer-trawler Ivan Korobkin opened the turnover program for 1990. Former comrades-in-arms, friends, relatives and close friends of Ivan Petrovich Korobkin, hero of Socialist Labor, came to escort the ship on its first run.

The trawler is densely fitted out with power devices, and has a modern navigation complex. B.S. Chugilko, chief engineer of trawler production, told the guests about the

output of the shipyard, which is famous in many world ports. Ships of the Black Sea workers have been registered in 15 of the country's cities, located on the shores of five seas. The new trawler was turned over to Sakhalin fishermen. Its first route is on the Bering Sea.

In March 1990, the Nikolayev shipbuilders turned over the next trawler, which is named after Anatoliy Borisovich Gankevich, hero of Socialist Labor. He was director of the Black Sea Shipyards for 20 years. During this period, modern ocean-going ships were developed. Construction of aircraft carriers, large ships with horizontal cargo-processing and a new series of trawlers was begun under his direction. Anatoliy Borisovich trained dozens of skilled specialists, who are carrying on his work today. Therefore, the trawler A. Gankevich, built by the hands of the Black Sea Shipyards workers, will be the best memorial for this remarkable man. Photo stands telling about A.B. Gankevich's life have been placed in the ship's leisure room; there is an album dedicated to the work of the shipbuilders during the building of the trawler; a portrait of Anatoliy Borisovich, painted by V.G. Khoyno, hangs in the messroom. The first run of the large freezer-trawler is to the shores of Chile (O.A. Zaretskaya).

Vyborg Shipyards

Among this year's orders is a supply of block-modules for the superstructure of a stationary oil-extracting rig, which will be operated by the Soviet-Vietnamese Vyetsovpetro Enterprise on the southern shelf of Vietnam. This is not the first such order. Since 1981, when three of the sector's enterprises (in Astrakhan, Kerch and Vyborg) were commissioned to manufacture block-modules for this joint venture, the Vyborg shipbuilders have fulfilled six such orders. The first lot of block-modules, fitted out with technological and power equipment and pipelines, was sent to the Socialist Republic of Vietnam in September-October 1982. The first oil was obtained on the shelf a year later, and since 1985, industrial amounts of it have begun to be extracted. Some of the block-modules of the seventh, most recent order of this series were manufactured in April. A brigade of yard specialists and ERA enterprises are performing the installation work and turning it over to the Socialist Republic of Vietnam. The first Soviet-Vietnamese Vyetsovpetro enterprise, created 9 years ago, has already extracted over 300 million tons of oil.

Okean Shipyards

On Saturday, 31 March, a triumphant ceremony was held to mark the removal of the second export ore carrier from the building dock. The ship is designed for the West German Howard Holdings Company. On that day, the shipbuilders and their families went to the yard. It was truly a holiday for the many children there. In accordance with tradition, Natalya Lanevskaya from the Department of the Chief Technologist, the godmother, "blessed" the ship, wishing it long and successful sailing, smashing a bottle of champagne against its side. The new

ore carrier was sent to sea several months later, after outfitting was completely finished at the yard's berth.

Astrakhan Shipbuilding Production Association imeni 60th Anniversary of the Soviet Union

This year the association marks its 60th anniversary. Here are the main events of the years that have passed.

On 4 June 1929, construction of the Astrakhan Ship Repair Yard began, and it was put into operation by mid-December the following year.

1936. Construction of the first all-welded hull of the paddle steamer, Geroy Mashanin.

November 1941—Start of the construction of the first series of armored launches.

1949—Large-series output of metal motor boats, as well as gasoline barges with a cargo capacity of 3,700-4,000 tons.

1952—Construction of platform barges, estimated for 1,000 tons, to provide structures for hydroelectric power plants. Over 100 units of them were manufactured.

1958—Development of diesel-electric ferries started.

1959—Order received to build large series dry cargo motorships of the Volgo-Balt type, with a 2,700 ton cargo capacity. Dry cargo ships were assembled by the flow-position method.

At the end of 1967, the keel was laid for a prototype tanker, the Nikifor Rogov, with a displacement of about 16,000 tons, designed to transport high-paraffin Caspian oil.

1970—The enterprise received a new title—the Astrakhan Marine Shipyard.

1974—The ASPO association was formed at the yard's base.

1975—The first domestic SPBU, the Baky, was turned over to the oil workers of Kaspiya.

1980—Assembly of the prototype PPBU, Shelf-1, also the first in our country.

1984—Start of developing the production of superstructure blocks for another type of drilling rig (in addition to self-docking and semi-submersible)—a stationary one.

The Astrakhan shipbuilders continue to produce efficient equipment for marine oil fields.
Leningrad Admiralty Association

Soviet Army and Navy Day was a double holiday for the crew of the new scientific research ship, the Marshal Krylov. The army-navy flag was raised on this sea-going ship on 23 February. The ship is named in honor of Marshal Nikolay Ivanovich Krylov (1903-1972), twice hero of the Soviet Union—a participant in the Civil War and World War II. Rear-Admiral M.V. Kudryashev,

V.L. Aleksandrov, LAO general director, and others congratulated the crew and shipbuilders at the triumphant meeting. Yu.N. Krylov, the marshal's son, spoke of his father's life and military career.

Navashino Oka Shipyard

Almost a month before the planned deadline, on 28 March 1990, the first ship of the delivery program for this year—the modernized motorship, Volzhskiy 32—was turned over to the purchaser (Ministry of the River Fleet). The ship is to operate on the Moscow-Petrazavodsk route. The shipbuilding program for the year includes the construction of eight river ships. At the same time, a considerable increase (42%) in the output of consumer goods is planned—suites of Yelena furniture, tourist tents, sports sets for general physical training and spare motor vehicle parts. In addition, production of PKhP-4 bread-baking ovens, pontoon motor vehicle bridges for the national economy and a special dredge to extract decay ooze is being developed. In 1989, 7.5 million rubles worth of consumer goods were produced.

Gorkiy Branch of the TsNIITS [Central Scientific Research Institute of Shipbuilding Technology]

An automated line to work 0.8-6 mm-diameter welding wire made of steel, aluminum, copper and various alloys is being developed. The basis for the work of this all-purpose line is a treatment method which includes bipolar electrochemical action with the application of ultrasonic oscillations. The line consists of a marking device, a straightening mechanism, an ultrasonic cleaning unit, and mechanisms to cut and wind the wire into cassettes. The main advantages of ultrasonic processing over other cleaning methods are: high quality—only 0.5-1% of the contaminants remain; productivity—the speed of the processing is from 10 to 50 m/min; the absence of manual labor, as well as elimination of the use of fire-hazardous and toxic solvents. From the results of experimental operation of the line, an interyard advanced experience school is being held. Specialists have recommended it for widescale introduction into the sector's enterprises.

Baltic Yard Production Association

Because of this year's conversion, there has been a considerable—38%—updating of the goods produced by the association. The greatest growth relates to the production of consumer goods: 19.6 million rubles worth of them must be produced, which is 23.3% more than in 1989. The supply of food kettles has doubled—by the end of the year, plans are to produce 6,000 units of them, approximately 500 units a month. Some 150 sets of stuffing pumps, 15 fast-freeze units for pelmeni-making lines and 500 autoclaves to produce canned food are designated for the agroindustrial complex. Work is continuing at the building berths and the shore outfitters to develop heavy-duty nuclear-powered icebreakers, ships with horizontal cargo-processing and other orders.

Krasnoye Sormovo Yard Production Association

Dozens of dry cargo ships, including the new Volga series, with a cargo capacity of 5,000 tons, have left the association's building berths in the last few years. Sormovo ships are being operated in the basins of the Black, Caspian, Mediterranean, Baltic, North and Barents seas and the Pacific Ocean, as well as on the Don, Dnepr, Volga, Daugava, Visla, Amur, Pechora and other rivers. Since the signing of the Act on Turning Over a Ship to the Purchaser, a 12 month-guarantee deadline has been in effect. During this time, constant relations are maintained between the main construction department and the crew. When necessary, the workers of the guarantee service and specialists of the association travel directly to the site of the ship. All the shortcomings revealed are taken into consideration in building the next series motorships.

Gorizont Production Association

The history of this well-known association (Rostov-on-Don), which produces radar equipment for ships, has begun to count off its fifth decade. On 19 December 1989, on the day of the official 40th anniversary of the association, a Labor Glory Room was opened, the exhibits of which tell the story of the enterprise, its veterans, and, of course, the goods produced. For example, the association's workers steadily developed the Gyuy, Neptun, Don, Volga, Kivach, Mius and Liman navigation radar stations from 1951 to 1989. Consumer goods have also been manufactured. Among them are automated games, hair-driers and toys. Work has now started on the production of special equipment for the food and medical industries.

Yaroslavl Shipyard

In April the yard held a seminar for deputy directors of production, chief economists and other specialists of the shipbuilding enterprises. Problems of shipbuilding, consumer goods production development and other problems arising under the conditions of the development of a planned market economy, were discussed. In particular, the first results of this process were noted. This is, in particular, a sharp deterioration in providing production with various supplies. With the consolidation of the positions of the cooperatives, all the sector's enterprises have begun to feel an efflux of personnel. Because of this, the problem of taking measures to secure personnel at State enterprises has become an urgent one.

Feodosiya Production Association imeni 26th CPSU Congress

What must be done first of all to improve matters in the social-production sphere? Here are some of the results of a press-questionnaire, "Vashe mneniye" [Your Opinion], published by the high-circulation newspaper PROGRESS:

Build more housing (84.1% of those taking part in this sociological poll);

Achieve true worker participation in solving the problems of the social sphere (72.6%);

Constantly study public opinion and the needs of the workers and take them into consideration when formulating plans for social development (71.7%);

Pay more attention to work conditions, the state of the everyday facilities, etc. (56.6%);

Improve passenger transport operation (55.8%);

Improve opportunities for recreation and leisure for workers and their family members (54%);

Expand the network of shops and order-desks (51.3%);

Improve interrelations in the collective (41.6%).

Kherson Shipyard Production Association imeni 60th Anniversary of the Lenin Komsomol

The branch of the Nikolayevskiy Shipbuilding Institute, operating at the KhSPO, has been helping to train qualified specialists for the association for almost two decades. Counting last-year's 17th graduation, over 1,500 persons have received an engineer's diploma here. A new element in the work of the branch is the expansion of the network of daily training—this year it handled a third group of students. They are trained in six specialties, covering the fields of shipbuilding, ship power engineering and oceanological engineering. The fact that their senior engineering project topics include actual production problems of the KhSPO is very important for the graduates' rapid adaptation to production.

Perm Kama Shipyard

The yard has organized an inspection-competition for the purpose of improving everyday facilities in shops and departments, with a quarterly bonus for the winners. The initiative and interest of the workers themselves in this plan is yielding good results. Last year a sauna and swimming pool were built in the instrument shop, and the showers were rebuilt by the workers' own efforts. G.V. Dolgye, V.N. Galkin and others—true enthusiasts—did a great deal with their own hands. A few months ago, a shop tea-room and billiard room were opened. There has been thought given to fitting out a room for physical culture and health improvement.

Yacht Building Center

Its founders are the NTTM [Young People's Scientific-Technical Creativity] Irvus Center of the Ministry of the Shipbuilding Industry and the Kiev Oblast Division of the Soviet Children's Fund. Founded last year in Kiev, this Center set itself the task of ensuring satisfaction of the needs of the population for relatively inexpensive, safe sailboats, which are suitable for both initial training in running under sail and for family tourism. The Center's sphere of activity includes designing promising types of yachts, organizing their production, constructing appropriate dry-docks and yacht clubs, setting

up schools for yachtsmen and holding competitions and long-distance sports cruises. Creative collectives of specialists will be drawn in to solve these problems on contractual principles. There are plans to organize internal production of small yachts and introduce their

development at enterprises in the sector. All of the Center's yacht building activity is based on cost accounting principles.

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